

THE  
Country-Mans  
NEW ART OF  
PLANTING  
AND  
GRAFFING:

Directing the best way to make  
any ground good for a Rich Orchard:

With the manner how to Plant and Graffe  
all sorts of Trees, to Set and Sow Camels; As  
also the Remedies and Medicines concerning  
the same: With divers other New Experiments:

*Practised by* LEONARD MASCALL.

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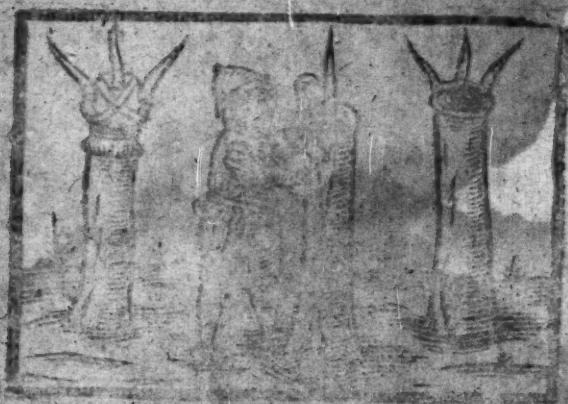


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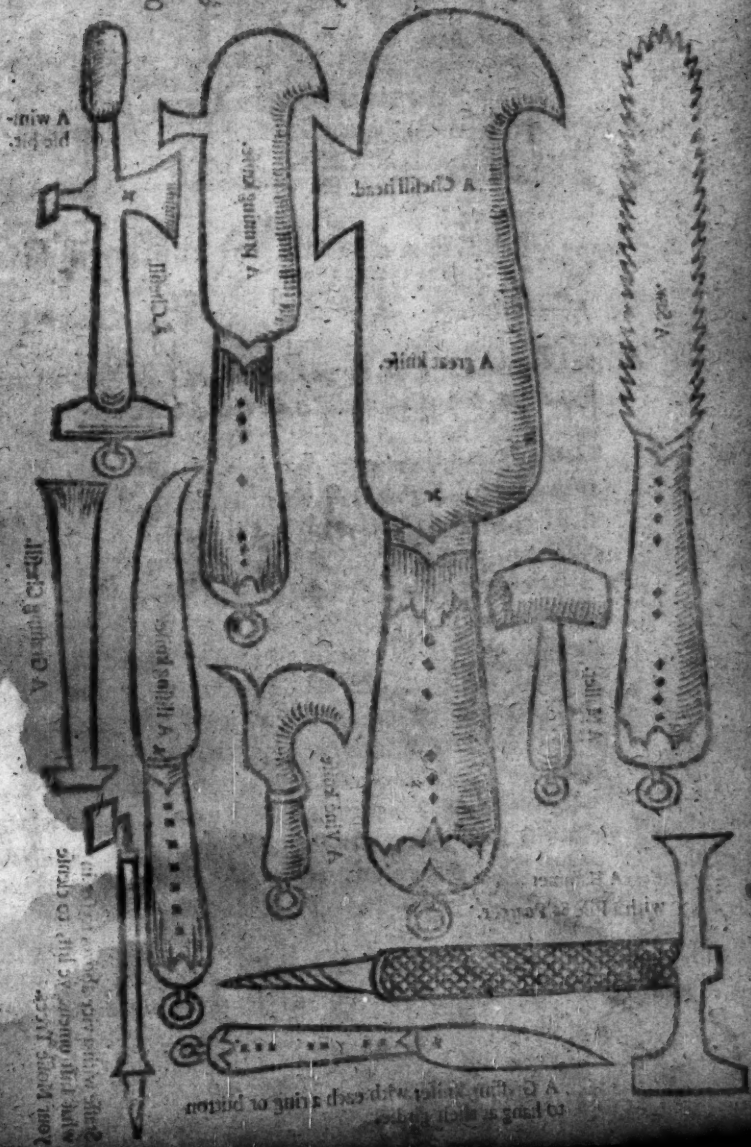
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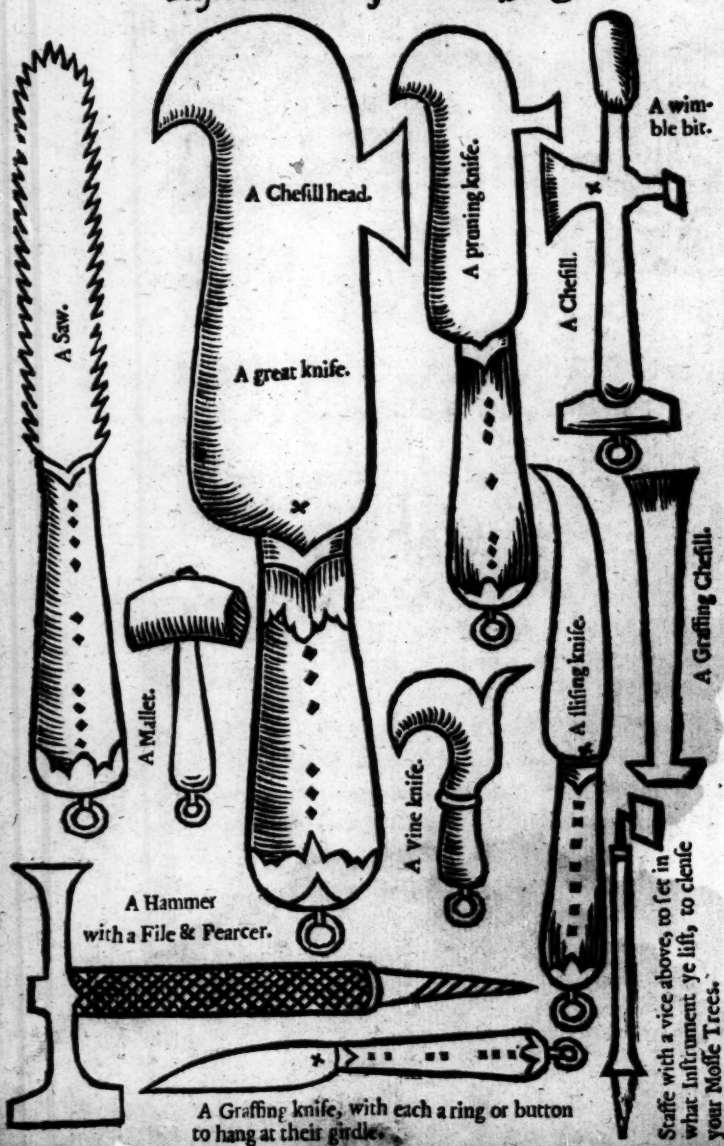
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# Instruments for Grafting.



# *Instruments for Graffing.*





Instructions for the PLANTER  
and GRAPER.



Alwaies before ye do intend to Plant  
at Orner, it shall be meet to have  
good experience in things meet  
for this Art, as in knowing the Na-  
tures of all Trees and Fruits, and  
the differences of Climates, which  
be contrary in every Land, also  
to understand the East and West winds, with aspects  
and States, to the end ye may begin nothing that  
the Wind or Raine may oppresse, that your labour  
be not lost, and to mark also and consider the di-  
sposition of the Elements that present years, for  
all years be not of like operation, nor yet after one  
sort: the Summer and Winter do not bane one face  
on the Earth, nor the Spring time alwaies Raine, or  
Autumne alwaies moiste, of this none have under-  
standings, without a good and lively marking spirit,  
few or none (without learning) may discern of the  
varieties and qualities of the earth, and what it  
doth aske or refuse. Therefore it shall be good to  
have understanding of the ground where ye doe  
Look B plant,

### *To the Planters and Graffers.*

plant, either Orchard or Garden with fruit : first it behooveth to make a sure defence, to the end that not onely rude persons and Children may be kept out, but all kind of hurtfull Cattell, indauntyng your Plants or Trees, as Oxen, Kine, Calves, Horses, Hogs, and Sheep, as the rubbing of Sheep doth greatly burne the Sap, and often doth kill young Trees and Plants, and where they are broken, or bruised with Cattell, it is doubtfull to grow after. It shall be good also to Set, Plant, or Graffe Trees all of like nature, and strength together, that the great and high Trees may not overcome the low and weak, for when they be not of like height, they grow not ripe nor your fruit so well at one time, but the one before the other: That earth which is good for Vines, is good also for other fruit.

Ye must digge your holes a yere before ye plant, that the earth may be the better seasoned, mortified, and wax tender, both by Raine in Winter, and Heat in Sommer, that thereby your Plants may take root the sooner, if ye wil make your holes and plant both in a year, at the least, ye ought to make your holes two months before ye plant, and as soone as they be made, then it shall be good to burn of straw, or such like therein, to make your ground warme: the further ye make them asunder, the better your Trees shall beare, make your holes like unto a Fornace, that is, more straight in the mouth then bendeth, whereby the roots may have the more roome, and by straightnesse of the mouth, the lesse Raine or cold shall enter thereby in Winter, and also lesse heat to the root in Sommer.

Looke

## To the Planture and Graffes

Looke also that the earth ye put to the roots, be neither wet, nor laid in water: they do commonly leave a good space betwixt every Tree, for the hanging boughes, being nigh together, ye cannot set roots, nor sow nothing so well under your trees, nor they will not bear fruit so well: Some loweth forrie foot, some thirtie foot, some thirtie between every Tree: Your plants ought to be greater then the handle of a shovell, and the lesser the better: See they be straight, without knots, or knobs, having a long straight graine of barked, which shall the sooner be apt to take Graffes, and when ye set branches or boughes of old Trees, choose the youngest and straightest, branch thereof, and those Trees which have borne yearlie good fruit before, take of those that grow on the Sunny side, sooner then those that grow in the covert or shadow, and when ye take up or alter your plants, ye shall note to what winds your plant is subject, and so let them be set againe, but those which have grown in drie grounds, let them be set in moist ground: Your plants ought to be cut off three foot long. If ye will set two or three plants together in a hole, ye must take heed the roots touch not one another, for then the one will perish and rot the other, or die by Wormes or other Vermin, and when you have placed your plants, in the earth, it shall be good to strike down to the bottome of every hole, two short stakes as great as your arme, on either side your hole, one: and let them appear but a little above the earth, that ye may (thereby in Sommer) give water unto the roots if need be. Your young plants, and rooted Trees are commonly set in Au-



## To the Planters and Graffers

runne, from the first unto the fifteenth of *October*, yet some are of opinion better after *Alboventide* unto *Christmas*, then in the Spring, because the earth will die too soone after, and also to let Plants without root after *Michaelmas*, that they may be the better mollified and gather root against the Spring, wheres of ye shall finde hereafter more at large. Thus much have I thought meet to declare unto the Planters and Graffers, whereby they may the better avoid the occasion and danger of Planting and Graffing, which may come often times through ignorance.

be apt to take Graffes, and when ye let branches of boughs of old Trees, choose the youngest and straightest branch thereof, and those Trees which have borne yeerlie good fruit before, take of those that grow on the sunny side, touch them in those that grow in the covert or shadow, and when ye take up or alter your plants, ye shall note to what winds your plant is subject, and so let them be set againe, but **The** which have grown in drie grounds, let them be set in moist ground: Your plants ought to be cut off three foot long. If ye will set two or three plants together in a hole, ye must take heed the roots touch not one another, for then the one will be ill and rot the other, or the by Wormes or other Vermin, and when you have placed your plants, in the earth, it shall be good to sink down to the bottome of every hole, two short stakes as great as your arms, on either side your hol, one; and let them appear but a little above the earth, that ye may (therby in Sommer) give water unto the roots if need be, Your young plants, and rooted Trees are commonly set in A.



The Table of all the principall things contained in  
this Booke, which ye shall hereafter finde  
by number and Lease.

Of the seven Chapters following.

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*The Art of*  
**PLANTING**  
**AND**  
**GRAFFING.**

**CHAP. I.**

*This Chapter treateth of the setting of Curnels, young Plum trees, and Pear trees, of Damson and Service trees.*



Or to make young trees, of the Pepins of Apples, Pears, Plums, and Services: First ye must prepare and make a great bed or quarrer well replenished, blend or mixt with good fat earth, and placed well in the Sun, and to be well laboured and digged a good time before you do occupy it: and if you can by any means, let it be digged very deep the Winter before, in blending or mixing it well together with good fat earth, or else let it be mixed almost the half with good dung: and so let it rot and ripen together with the earth. And see alwaies that plot be clean where you intend to Plant, that no wild Cion or Plants do spring or grow thereon. Then in the moneth of September, December or thereabouts, take of the Pepins,



## The Art of

or Pomes of the said fruit at the first pressing out of your liquor, before the curnels be marred or bruised: then take out of them, and rub a few at once in a cloth, and dry them betwixt your hands, and take so many thereof as you shall thinke good: then make your bed square, faire and plain, and sow your seeds thereon, then take and cover them with a rake lightly, or with earth, not putting too much upon them. This done, divide your beds into quadrants or squares, of four foot broad or thereabouts, that when ye list ye may cleanse them from the one side to the other, without treading thereon. Then shall ye cover your Seeds or Pepins with fine earth, so sifting all over them, that then they may take the deeper and surer root, and keep the better in Winter following, and if ye list ye may take them a little all over, so that ye raise not your Pepins above the earth.

*Another way how one may take the Pepins at the first coming of the liquor or pressing.*

**Y**E shall choose the greatest and fairest curnels of Pepins, and take them forth at the first bruising of your fruit; then dry them with a cloth, and keep them all the Winter, untill St. Andrews tide: then a little after sow them in good earth, as thin as ye sow Peason, and then rake them over as the other.

*How one ought to use his earth to sow Pepins without dunging.*

**B**UT in this manner of digging (in the Spring) it is not so great need for to raise or dig so deep as that which is dunged in Winter: but to divide your quarters, in covering your Pepins not so much with earth as those which be sown with good dung, but when ye have sown them, rake them a little all over.

*How ye ought to take heed of Poultry for scraping of your beds or quarters.*

**A**S soon as your Pepins be sown upon your beds or quarters, let this be done one way or other, that is, take good heed that your Hens do not scrape your beds or quarters; therefore stick them all over light and thin with boughes or thornes, and take good heed also to Swin, and all other Cattel,

*How*



*How to weed or cleanse your beds or quarters.*

**W**hen the Winter is Past and gone, and that ye see your Pepins rise and grow, so let them increase the space of one year: but see to cleanse weeds, or other things which may hurt them, as ye shall see cause. And in the Summer when it shall wax dry, water them in the evenings.

*How one ought to pluck up the wild Cions.*

**W**hen these wild Cions shall be great, as of the growth of one year, ye must then pluck them up all in the winter following, before they do begin to spring againe: Then shall ye set them and make of them a wild Orchard as followeth.

CHAP. II.

*This Chapter treateth how one shall set againe the small wild trees, which come of Pepins, when they be first plucked up.*

**U**pon the bastard or wild trees, incontinent as soone as they be plucked up, ye must have of other good earth well trenched and dunged, and to be well in the Sun, and well prepared and dressed, as it is said already of the Pepins.

*How to dung your Bastard or wild young trees which come of Pepins.*

**A**bout Advent (before Christmas) ye must dig and dung well the place wher as ye will set them, and make your square of earth even and plaine, so large as ye shall thinke good; then set your wild trees so far one from another as ye thinke meet to be graft, so that they may be set in even rankes and in good order, that when need shall require, ye may remove or renew any of them for any part thereof.

*How ye ought in re-planting or setting, to cut off in the midst the principall great root.*

**I**n what part soever ye do set your trees, ye must cut off the great master root, within a foot of the stock, and all other big roots, so that ye leave a foot-long thereof, and so let them be set, and make

make your rankes crosse-wise one from another halfe a foot, or thereabouts, and ye must also see that there be of good dung more deep and lower then ye do set your trees, to comfort the said roots withall.

*How you ought to set your trees in ranks.*

**Y**E shall set your small young trees in ranks, half a large foot one from another: and let them be covered as ye do set them, with good fat earth all over the roots.

*How to make the space from one ranke to another.*

**Y**E shall leave between your ranks, from one ranke to another, one foot, or thereabouts, so that ye may passe between every ranke for to cense them if need require, and also to graffe any part or parcell thereof when time shall be meet. But ye must note, in making thus your ranks, ye shall make as many Allies as ranks. And if ye thinke it not good to make so many Allies, then divide those into quarters of five foot broad, or thereabouts, and make and set four ranks (in each quarter of the same) one foot from another, as ye use to set great Cabbage. And as soon after as ye have set them in ranks and good order, as is aforesaid, then shall ye cut off all the sets even by the ground. But in this doing, see that ye do not pluck up or loose the earth which is about them: or if ye will, ye may cut them before ye do set them in ranks; If ye do so, see that ye set them in such good order, and even with the earth, as is aforesaid. And it shall suffice also to make your ranks as ye shall see cause. And look that ye furnish the earth all over with good dung, without mingling of it in the earth, nor yet to cover the said plants withall, but strawed betwixt: and ye must also look well to the censing of weeds, graffe, or other such things which will be a hurt to the growth of the Plants.

*How to water plants when they were drie.*

**I**T shall be good to water them when the time is dry: in the first year; Then when they have put forth new Cions, leave no more growing but that Cion which is the principal and faired, upon every stock one: all the other cut off hard by the stock: and ever as there do grow small twigs about the stock, ye shall (in the moneth of March and April) cut them all off hard by the stock. And if ye then stick by every plant a pretty wand, and so bind them with

with willow bark, brier, or Ozlers, it shall profit them much in their growth. Then after five or six years growth, when they be so big as your finger, or thereabouts, ye may then remove any of them whereas you will have them grow and remain.

*How one ought to remove trees and to plant them againe.*

**T**He manner how ye ought to remove trees, is shewed in the sixt Chapter following: then about two or three year after their removing, ye shall graffe them, for then they will be the better rooted. As for the others which ye leave still in rankes, ye may graffe them whereas they stand, as ye shall see cause good. When ye have plucked up the fairest to plant in other places (as is afore-said) the manner how to Graffe them, is shewed in the fift Chapter following. But after they shall be so grafted, in what place soever it be, ye shall not remove or set them in other places again, untill the Graffes be well closed upon the head of the wild stock.

*When the best time is to re-plant or remove.*

**W**Hen the head of the stock shall be all over closed about the graffes, then ye may when ye will, transplant and remove them (at a due time) where they shall continue. For with often moving, ye shall do them great hurt in their roots, and be in danger to make them die.

*Of negligence and forgetfulnessse.*

**I**F peradventure ye forget (through negligence) and have let small Cions two or three years grow about the roots of your Poeks unplucked up, then if ye have so done, ye may well pluck them up and set them in rankes, as the other of the Pepins. But ye must set the rankes more large, that they may be removed without hurting of each others roots: and cut off all the small twiggcs above as need shall require, though they be set or grafted. Order them also in all things as those small Cions of a years growth.

*It is not so convenient to graffe the Service tree, as to set him.*

**W**Hereas ye shall see young Service trees, it shall be most profit in setting them; for if ye do graffe them, I beleeeve ye shall win nothing thereby. The best is onely to pluck up the young Bastard trees when they are as great as a good walking-staffe; then prune or cut off their branches and carry them to set whereas they

may be no more removed: and they shall profit more in setting then grafting.

*Some trees without grafting bring forth good fruit, and some other being grafted be better to make Sider of.*

**I**T is here to be marked, that though the Pepins be sowed of the Pomes of Pears and good Apples, yet yeshall finde that some of them do love the tree whereof they came: and those be right, which have also a smooth barke, and as faire as those which be grafted: the which if ye plant or set them thus growing from the master root without grafting, they shall bring as good fruit, even like unto the Pepin whereof he first came. But there be other new sorts commonly good to eat, which be as good to make Sider of as those which shall be grafted for that purpose.

*When you list to augment and multiply your trees.*

**A**Fter this sort ye may multiply them, being of divers sorts and diversities, as of Pears, or Apples, or such like. Norwithstanding, whensoever you shall find a good tree thus come of the Pepin, as is aforesaid, so shall ye use him. But if ye will augment trees of themselves, ye must take Graffes and so graft them.

*Of the manner and changing of the fruit of the Pepin tree.*

**W**hensoever ye do replant or change your Pepin trees from place to place, in so removing often the stock, the fruit thereof also changes: but fruit which doth come of grafting, doth alwaies keep the forme and nature of the tree whereof he is taken: for as I have said, as often as the Pepin trees be removed to a better ground, the fruit thereof shall be so much amended.

*How we ought to make good Sider.*

**H**ere is to be noted, if ye will make good Sider of what fruit soever it be, being Pears or Apples, but specially of good Apples & wild fruit, have alwaies a regard unto the ripening thereof; so gathered dry, then put them in dry places, on boards in heaps, covered with dry straw, and whensoever ye will make Sider thereof, chuse out all those that are black, bruised, and rotten Apples, and throw them away, then take and use the rest for Sider. But here to give you understanding, do not as they do in the Country of

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*Menz*, which do put their fruit gathered into the midst of their Garden, in the raine and mistings, upon the bare earth, which will make them to lose their force and vertue, and doth make them also withered and tough, and lightly a man shall never make good Sider that shall come to any purpose or good profit thereof.

*To make an Orchard in few years.*

Some do take straight slips, which do grow from the roots, or of the sides of the Apple trees, about *Michaelmas*, and do so plant or set them (with Oates) in good ground, whereas they shall not be removed, and so graffe (being well rooted) thereon. Other some do take and set them in the spring time (after *Christmas*) in like wise, and do graffe thereon when they be well rooted: and both do spring well. And this manner of way is counted to have an Orchard the soonest. But these trees will not indure past twenty or thirty years.

### CHAP. III.

This Chapter is of setting Trees of Nuts.

*How one ought to set trees which come of Nuts.*

**O**R to set trees which come of Nuts: when ye have eaten the fruit, looke that ye keep the Stones and Curnels thereof, then let them be dried in the wind, without the vehemency of the Sunne, so reserve them in a box and use them as before.

*Of the time when ye ought to plant or set them.*

**Y**E shall plant or set them in the beginning of Winter, or afore *Michaelmas*, whereby they may the sooner spring out of the earth. But this manner of setting is dangerous: for the Winter then comming in, and they being young and tender in coming up, the cold will kill them. Therefore it shall be best to stay and reserve them till after Winter. And then before ye do set them, ye shall soke or steep them in Milke, or in Milke and Water, so long till they do stink therein: then shall ye dry them and set them in good earth, in the change or increase of the Moon, with the small end upward, four fingers deep; then put some stick thereby to marke the place

For



*For to set them in the Spring time.*

**I**F ye will plant or set your Nuts in the Spring time where ye will have them still to remain, and not to be removed, the best and most easie way is to set in every such place (as ye think good) three or four Nuts nigh together, and when they do all spring up, leave none standing but the fairest.

*Of the dung in, and deep digging thereof.*

**A**Lso whereas ye shall thinke good, ye may plant or set all your Nuts in one square or quarter together in good earth and dung, in such place and time as they use to plant. But see that it be well dunged, and also digged good and deep, and to be well mingled with good dung throughout; then set your Nuts three fingers deep in the earth, and half a foot one from another: ye shall water them often in the Summer when there is dry weather, and see to weed them, and dig it as ye shall see need.

*Of Nuts and Stones like the trees they came of.*

**I**T is here to be noted, that certain kind of Nuts and Curnel do love the trees they came of, and their fruit is like unto them, when they be planted in good ground, and set well in the Sun; which be, the Walnuts, Chestnuts, all kind of Peaches, Figs, Almonds, and Apricots; all these do love the Trees they came of.

*Of the planting the said Nuts in good earth, and in the Sun.*

**A**Ll the said Trees do bring as good fruit of the said Nuts, if they be well planted, and set in good earth, and well in the Sun, as the fruit and Trees they came of.

*Why fruit shall not have so good savour.*

**I**F ye plant good Nuts, good Peaches, or Figs in a Garden full of shadow, the which hath afore loved the Sun, as the Vine doth, for lack thereof, their fruit shall not have so good savour, although it be all of one fruit: and likewise so it is with all other fruit and trees; for the goodnesse of the earth, and the faire Sun, doth preserve them much.



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*For to set the Pine tree.*  
**F**Or to set the Pine tree, ye must set or plant them of Nuts, in March, or about the heat of the sap, not lightly after; ye must also set them where they may not be removed after, in holes wel digged, and wel dunged, not to be transplanted or removed again, for very hardly they will shoot forth Cions, being removed, especially if ye hurt the maister root thereof.

*For to set Cherry trees.*

**F**Or to set sower Cherries which do grow commonly in Gardens, ye shall understand they may well grow of stones, but better it shall be to take of the small Cions which do come from the roots: then plant them, and sooner shall they grow then the stones, and those Cions must be set when they are small, young and tender, as of two or three years growth: for when they are great, they profit not so well: and when ye set them, ye must see to cut off all the boughes.

*Trees of Bastard and wild Nuts.*

**T**Here be other sort of Nuts, although they be wel set in good ground, and also in the Sun, yet will they not bring halfe so good fruit as the other, nor commonly like unto those Nuts they came of, but be a bastard wild or sower fruit, which is the Filberd, smal Nuts, of Plums, of Cherries, and the great Apricots: therefore if ye will have them good fruit, ye must set them in manner and forme following.

*How to set Filberds or Hasell trees.*

**F**Or to set Filberds or Hasels, and to have them good, take the smal wands that grow out from the root of the Filberd or Hasell tree (with short hairy twigs) and set them, and they shall bring as good fruit as the tree they came of: it shall not be needful to prune, or cut off the branches thereof when ye set them, if they be not great; but those that ye doe set, let them be of two or three years growth, and if ye shall see those Cions which ye have planted, not to be faire and good, or do not grow and prosper wel, then (in the springtime) cut them off hard by the root, that other smal Cions may grow thereof.

*To set Damsons or Plum trees.*

**I**N setting Damsons or Plum trees, which fruit ye would have like to the tree they came of: if the said trees be not graft before, ye shall take only the Cions that grow from the root (of the old stock)

D

which

which groweth with small twigs, and plant or set them : and their fruit shall be like unto the trees they came of.

*To take Plum gresses, and graffe them on other Plum trees.*

**A**nd if your Plum tree be graft already, and have the like fruit that ye desire, ye may take your gresses thereof; and graffe them on your Plum trees, and the fruit that shall come thereof, shall be as good as the fruit of the Cions which is taken from the root, because they are much of like effect.

*To set all sorts of Cherries.*

**T**O set all sorts of great Cherries, and others, ye must have the gresses of the same trees, and graffe them on other Chery trees, although they be of lower fruit; and when they are so graft, they will be as good as the fruit of the tree whereof the graffe was taken: for the stones are good to set, to make wild Cions, or plants to graffe on.

*The manner how one may order both Plum trees and Chery trees.*

**F**Or as much as these are two kind of trees, that is, the Chery and the Plum tree; for when they be so graft, their roots be not so good, nor so free as the branches above; wherefore the Cions that do come from the roots, shall not make so good and frank trees of. It is therefore to be understood, how this manner and sort is to make franke trees, that may put forth good Cions in time to come, which is, when they be great and good; then if ye will take those Cions, or young sprigs from the roots, ye may make good trees thereof, and then it shall not need to graffe them any more after, but to augment one by the other, as ye do the Cions from the root of the Nut, as is aforesaid, and ye shall do as followeth.

*How to graffe Plum trees, and Chery trees.*

**Y**E may well graffe Plum trees, and great Chery trees, in such good order as ye list to have them, and as hereafter shall be declared in the fifth Chapter following: for these would be grafted while they are young and small, and also graft in the ground, for thereby one may dresse and trim them the better, and put one graffe in each stock of the same. Cleave not the heart, but a little on the one side, nor yet deep, or long open.

*How ye must prune or cut your trees.*

**W**hen your gresses be well taken on the stock, and that the gresses do put forth faire & long, above one years growth, ye must prune or cut the branch off, commonly in the Winter, (when they

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they prune their Vines) a foot lower, to make them spread the better: then shall ye mingle all through with good fat earth, the which will draw the better to the place, which ye have so pruned or cut.

*The convenientest way to cleanse and prune, or dresse the roots of trees.*

**A**nd for the better cleansing and pruning trees beneath, ye shall take away all the weeds, and grasse about the roots; then shall ye dig them so round about, as ye would seeme to pluck them up, and shall make them halfe bare; then shall ye enlarge the earth about the roots; and whereas ye shall see them grow full and long, place or couch them in the said hole and earth again: then shall ye put the cut end of the tree where it is graft, somewhat lower then his roots were, whereby his Gions so graft shall spring so much the better.

*When the stock is greater then the graffes.*

**W**hen as the tree waxeth, and swelleth greater beneath the grafting then above; then shall ye cleave the roots beneath, and wreath them round, and so cover them againe. But see ye break no root thereof, so will he come to perfection: But most men do use this way: If the stock wax greater then the graffes, they do slit downe the barke of the graffes above, in two or three parts, or as they shall see cause: and so likewise, if the graffes wax greater above then the stock, ye shall slit down the stock accordingly, with the edge of a sharp knife. This may well be done at any time in *March, April, and May*, in the increase of the Moon, and not slightly after.

*The remedie when any bough or member of a tree is broken.*

**I**F ye shall chance to have boughes, or members of trees broken, the best remedies shal be to place those boughes or members right soon again, (then shall ye comfort the roots with good fat earth) and bind fast those broken boughes or members, both above and beneath, and so let them remaine unto another year, till they may close and put forth new Gions.

*When a member or bough is broken, how to prune them.*

**W**hereas ye shall see under or above superfluous boughes, ye may cut or prune off, (as ye shall see cause) all such boughes hard by the tree, at a due time, in the Winter following. But leave all the principal branches; and whereas any are broken, let them be cut off beneath, or else by the ground, and cast them away: thus

must ye do yearly, or as ye shall see cause, if ye will keep your trees well and faire.

*How one ought to enlarge the hole about the trees roots.*

**I**N pruning your trees, if there be any roots, ye must enlarge them in the hole, and so wreath them, as is aforesaid, and use them without breaking, then cover them again with good fat earth, which ye shall mingle in the said hole, and it shall be best to be digged all over a little before, and see that no branch or root be left uncovered; and when you have thus dressed your trees, if any root shall put forth, or spring hereafter out of the said holes, in growing, ye may so prune them as ye shall see cause, in letting them so remain two or three years after, until such time as the said grasses be sprung up, and well branched.

*How to set small staves by to strengthen your Gions, and down*

**T**O avoid danger, ye shall see or prick small staves about your Gions, for fear of breaking, and then after three or four years, when they be well branched, ye may then set or plant them in good earth, (at the beginning of Winter) but see that ye cut off all the small branches hard by the stock, then ye may plant them where ye thinke good, so as they may remaine.

*In taking up staves, note.*  
**Y**E may well leave the master root in the hole (when ye digge him up) if the removed place be good for him, cut off the master root by the stub, but pare not off all the small roots, and so plant him, and he shall prosper more thus, then others with all their master roots. When all trees be great, they must be dis-branched, or boughes cut off, before they be set again, or else they will hardly prosper. If the trees be great, having great branches or boughes, when ye shall digge them up, ye must dis-branch them before ye set them again; for when trees shall be thus pruned, they shall bring great Gions from their roots, which shall be frank and good to replant, or set in other places, and shall have also good branches and roots, so that after it shall not need to graffe them any more, but shall continue one after another to be free and good.

*How to couch the roots when they are pruned.*

**I**N setting your trees again, if ye will dresse the roots of such as ye have pruned, or cut off the branches before, ye shall leave all such small roots which grow on the great root, and ye shall so place those roots in re-planting again not deep in the earth, so that they may

may soon grow, and put forth Cions : which being well used, ye may have fruit so good as the other afore mentioned, being of three or four years growth, as afore is declared.

*What trees to prune.*

**T**His way of pruning is more hard for the great Chery (called Healmier) then for the Plum tree. Also it is very requisite and meet for those Cions, or trees, which be graft on the wild sower Chery tree, to be pruned also for divers and sundry causes.

*Why the sower Chery dureth not so long as the Healmier or great Chery.*

**T**He wild and sower Chery, of his own nature will not so long time endure (as the great Healmie Chery) neither can have sufficient sap to nourish the graffes, as the great Healmie Chery is graft; therefore when ye have pruned the branches beneath, and the roots also, so that ye leave roots sufficient to nourish the tree, then set him. If ye cut not off the under roots the tree will profit more easily, and also the lighter to be known, when they put forth Cions from the root of the same, the which ye may take heretfter.

*To graffe one great Chery upon another.*

**Y**e must have respect unto the Healmie Chery, which is graft on the wild Gomire (which is another kind of great Chery) and whether you do prune them or not, it is not materiall : for they dure a long time. But ye must see to take away the Cions, that do grow from the root of the wild Gomire, or wild Plum tree, because they are of nature wild, and do draw the sap from the said trees.

*Of deep setting or shallow.*


**S**Et your hocks or trees somewhat deeper on the high grounds, then in the vallies, because the Sun (in Summer) shal not dry the root : and in the low ground more shallow, because the water (in Winter) shall not drown or annoy the roots ; Some do marke the flock in taking up, and to set him again the same way, because he will not alter his nature : so likewise the graffes in graffing.



## CHAP. IV.

This Chapter sheweth how to set other Trees which come of Wild Cions, pricked in the earth without roots: and also of pruning the meaner Cions.

*Trees take root prickt of branches.*

 Here be certaine which take root, being prickt of branches pruned off other Trees, which be the Mulbery, the Fig tree, the Quince tree, the Service tree, the Pomgranate tree the Apple tree, the Damson tree, and diuers sorts of other Plum trees, as the Plum tree of Paradise, &c.

*How one ought to set them.*

**F**Or to set these sorts of Trees, ye must cut off the Cions, twigs or boughes, betwixt Alhallonde and Christmas, not lightly after. Ye shall choose them which be as great as a little staffe or more; and look whereas ye can find them faire, smooth, and straight, and full of sap withall, growing of young trees, as of the age of three or four years growth, or thereabouts, and look that ye take them so from the Tree with a broad Chisel, that ye break not or loose any part of the barke thereof, more then half a foot beneath, neither of one side or other: then prune or cut off the branches, and prick them one foot deep in the earth, well digged and ordered before.

*How to bind them that be weak.*

**T**Hose plants which be slender, ye must prune or cut off the branches, then bind them to some stake or such like to be set in good earth, and well mingled with good dung, and also to be well and deeply digged, and to be set in a moist place, or else to be well watred in Summer.

*How one ought to digge the earth for to set them in.*

**A**nd when that ye would set them in the earth, ye must first prepare to dig it, and dung it well throughout a large foot deep in the earth. And when as ye will set them every one in his place made (before) with a crow of Iron, and for to make them take root the better, ye shall put with your plants, watred Oates or Barly, and so ye shall let them grow the space of three or four years, or when



when they shall be wel branched, then ye may remove them ; and if ye break off the old stubby roots and set them lower, they will last a-long time the more. If some of those plants do chance to put forth Cions from the root, ye must pluck them up though they be tender, and set them in other places.

*Of Cions without roots.*

**I**F the said plants have Cions without roots, which come from the tree root beneath, then cut them not till they be of two or three years growth, by that time they will gather roots to be planted in other places.

*To plant the Figtree.*

**T**He said plants taken of Fig trees grafted, be the best. Ye may likewise take other sorts of Fig trees, and graffe one upon the other, for like as upon the wild trees do come the Pepins, even so the Fig, but not so soon to prosper and grow.

*How to set Quinces.*

**L**ikewise the nature of Quinces is to spring, if they be pricked (as-aforesaid) in the earth, but sometimes I have grafted with great difficulty (saith mine Author) upon a white Thorne, and it hath taken and born fruit, faire to looke on, but in tast more weake then the other.

*The way to set Mulberies.*

**T**Here is also another way to set Mulberies, which is as followeth; if you doe cut in Winter certain great Mulbery boughes or stocks afunder in the body (with a saw) in tronchions a foot long or more, then ye shall make a great furrow in good earth wel and deep, so that you may cover well again your tronchions, in setting them an end half a foot one from another, then cover them againe, that the earth may be above those ends, three or four fingers high ; so let them remain, and water them (in summer) if need be sometimes, and cleanse them from all hurtfull weeds and roots.

*Another for the same.*

**N**ote that within a space of time after, the said tronchions will put forth Clons, the which when they be somewhat sprigged, having two or three small twigs, then ye may transplant or remove them where ye list, but leave your tronchions stil in the earth, for they will put forth many motions, the which if they shall have scanty of root, then dung your tronchions with good earth, and likewise above also, and they shall do well.

*The*

*The time to cut Cions.*

**Y**E shall understand that all trees which do commonly put forth Cions, if ye cut them in Winter, they will put forth and spring more abundantly, for then they be all good to set and plant.

*To set Bush trees, or Gooseberries, or small Raisons.*

**T**Here be many other kinde of Bush trees, which will grow of Cions pricked in the ground: as the Gooseberry tree, the small Raison tree, the Barbery tree, the Black thorne tree, these with many others, if planted in Winter, will grow without roots: ye must also prune them and they will take well enough; so likewise ye may prick (in *March*) of Oziers in moist grounds, and they will grow, and serve to many purposes for your garden.

**W. C. H. A. P. V.**

### *This Chapter treateth of four manner of Graffings.*

**I**T is to be understood that there be many waies of Graffings, whereof I have here only put four sorts, the which be good, both sure and well proved, and easie to do, the which ye may use well in two parts of the year, & more, for I have (saith he) grafted in our ground, in every month, except *October* and *November*, and they have taken well, which I have (saith he) in the Winter begun to graffe, and in the Sommer graft in the Scutchion or shield according to the time, forward or slow: for certain trees, specially young faire Cions have enough or more of their sap unto midd *August*, then others some at *Midsummer* before.

*The first way to graffe all sorts of trees.*

**A**nd first of all it is to be noted, that all sorts of Franke trees, as also trees wild of nature, may be graft with graffes, and in the Scutchion, & both do take well, but especially those trees which be of like nature: therefore it is better so to graffe. Howbeit they may well grow and take of other sorts of trees, but certain trees be not so good, nor will prosper so well in the end.

*How to graffe Apple trees, Pear trees, Quince trees, and Medlar trees.*

**T**hey graffe the Pear graffe on the Pear stock, and Apple upon Apple stocks, Crab or Wilding stocks, the Quince and Medlar upon the White thorne: but most commonly they use to graffe one

Apple

Apple upon another, and both Pears and Quinces they graffe on Hathorn and Crab stock. Another kind of fruit called in *French Saulsey*, they use to graffe on the willow stock; the manner thereof is hard to do; which I have not seen; therefore I will let passe at this present.

*The graffing of great Cheries.*

**T**hey graffe the great Chery, called in *French Heaunmiers*, upon the Crab stock, and another long Chery called *Gynmiers* upon the wild or sower Chery tree, and likewise one Chery upon another.

*To Graffe Medlers.*

**T**he Mistle or Medler, they may be graffed on other Medlers, or on the white Thorne; the Quince is graffed on the white or black Thorne, and they do prosper well; I have graffed (saith he) the Quince upon the wild Pear stock, and it hath taken and borne fruit, well and good, but they will not long endure. I believe (saith he) it was because the graffe was not able enough to draw the sap from the Pear stock. Some graffe the Medler on the Quince, to be great. And it is to be noted, although the stock and the graffe be of contrary natures: yet notwithstanding, neither the graffe nor Scutchion, shall take any part of the nature of the wild stock so graffed, though it be Pear, Apple, or Quince, which is contrary against many which have written, that if ye graffe the Medler upon the Quince tree, they shall be without stones, which is an abuse and mockery. For I have (saith he) proved the contrary myself.

*Of divers kinds of graffes.*

**I**T is very true, that one may see a tree, which shall bear divers sorts of fruit at once, if he be graffed with divers kinds of graffe, as the black, white, and green Chery together, and also Apples of other trees, as Apples and Pears together, and in the Scutchion, (ye may graffe) likewise of divers kinds also, as on Pears, Apricots, and Plums together, and of others also.

*Of the graffing the Fig.*

**Y**e may graffe the Fig tree upon the Peach tree or Apricot, but leave a branch on the stock; & there must be according to the space of years, for one shall change sooner then the other. All trees abovesaid, do take very well being graffed one with the other. And I have not known, or found of any others, howbeit (saith he)

I have curiously sought and proved, because they say one may graffe in Coleworts, or on Elmets, which I thinke are but jests.

**T**He great Apricots they graffe in Summer, in the Scutchion or shield, in the sap or barke of the lesser Apricot, and they be graffed on Peach trees, Fig trees, and principally on Damson or Plum trees, for then they will prove the better.

**O**F the Service tree they say and write, that they may hardly be graffe on other Service trees, either on Apple trees, Pear, or Quince tree: and I believe this to be very hard to do, for I have tried (saith he) and they would not prove.

**T**herefore it is much better to set them of Currnells, as it is afore said, as also in the second Chapter of Planting of Cions, or other great trees, which must be cut in Winter, as such as shall be most meet for that purpose.

**A**ll other manner of trees aforesaid, do take very well to be graffed with Cions, and also in the shield, except Apricots on Peaches, Almonds, Percigniers, the Peach tree, do take hardly to be graffed; but in the shield in Summer, as shall be more largely hereafter declared. As for the Almond, Percigniers and Peaches, ye may betwix set them of Currnells or Nuts, whereby they shall the sooner come to perfection to be graffed.

How a man ought to consider those trees, which be commonly

charged with fruit.

**Y**E shall understand that in the beginning of graffing, ye must consider that sort of trees doth best charge the stock with branch and fruit, so that doth the Country or ground where you intend to plant or graffe them: for better it were to have abundance of fruit, then to have very few or none good.

Of trees whereof to chuse your graffes.

**O**F such trees as you will gather your graffes to graffe with, ye must take them at the ends of the principall branches, which be also fairest and greatest of sap, having two or three fingers length of the old wood, with the new, and those Cions of eyes somewhat nigh together are the best; for those which be long, or far one from another, be not so good for to bring fruit.

*The Cions toward the East are best.*

**Y**E shal understand that those Cions which do grow on the East or Orient part of the tree, are best: ye must not lightly gather of the evil or slender grasses, which grow in the midlt of the trees, nor any grasses which do grow within the branches, or that do spring from the stock of the tree, nor yet grasses which be on very old trees, for thereby ye shal not lightly profit to any purpose.

*To chuse your trees for grasses.*

**A**Nd when the trees whereas you intend to gather your grasses, be smal and young, as of five or six years growth, do not take of the highest grasse thereof nor the greatest, except it be of a smal tree of two or three years, the which commonly chah too much of top or wood, otherwise not, for you shal but mar your grassing.

*How to keep grasses a long time.*

**Y**E may keep grasses a long time good, as from *Alballonade* (so that the leaves be fallen) unto the time of grassing, if that they be wel covered in the earth half a foot deep therein, and so that none of them do appear without the earth.

*How to keep grasses before they be budded.*

**Y**E shal not gather them except ye have great need, until *Christmas* or thereabouts, and put them not in the ground nigh any walls, for feare of Moles, Mice, and water, maring the place and grasses. It shal be good to keep grasses in the earth before they begin to bud, when that ye will grasse betwixt the barke and the tree, and when the trees begin to enter into their sap.

*How one ought to begin to grasse.*

**Y**E may wel begin to grasse (in cleaving the stock) at *Christmas* or before, according to the coldnesse of the time; and principally the Healine or great Cherry, Peares, Wardens, or forward fruit of Apples: and for Medlars it is good to eary until the end of *January* and *February*, until *March*, or until such time as ye shal see trees begin to bud or spring.

*When is it good grassing the wild stocks.*

**I**N the spring time it is good grassing the wild stocks (which be great) betwixt the barke and the tree, such stocks as be of lateward spring, and kept in the earth before. The *Damson* or *Plum* tarieth longest to be graft: for they do not shew or put forth sap so soon as the others.



*Marke if the tree be forward or not*

**Y**E ought to consider alwaies, whether the tree be forward or not, or to be grafted soon or lateward, and to give him a gaffe of the like hast or slownesse: even so ye must marke the time, whether it be slow or forward.

*When one will gaffe, what necessaries he ought to be furnished withall.*

**W**hensoever yee goe to grafting, see ye be first furnished with gaffes, clay and mosse clothes or barks of fallow to bind likewise withall. Also ye must have a small saw, and a sharp knife, to cleave and cut gaffes withall. But it were much better if you should cut your gaffes with a great penknife or some other like sharp knife, having also a small wedge of hard wood, or of Iron, with a hooked knife, and also a smal mallet. And your wild stocks must be well rooted before ye do gaffe them: and be not so quick to deceive your selves, as those which doe gaffe and plant all at one time; yet they shall not profit so well; for where the wild stock hath not substance in himselfe, much lesse to give unto the other gaffes, for when a man thinks sometimes to forward himselfe, he doth hinder himselfe.

*Of gaffes not prospering the first yeare.*

**Y**E shall understand, that very hardly your gaffes shall prosper after if they do not profit or prosper well in the first year; for whensoever (in the first yeare) they profit well, it were better to gaffe them somewhat lower then to let them so remaine and grow.

*For to gaffe well and sound.*

**A**nd for the best understanding of grafting in the cleft, ye shall first cut away all the small Cions above the body of the stock beneath; and before ye begin to cleave your stock, dresse and cut your gaffes somewhat thick and ready; then cleave your stock, and as the cleft is small or great (if need be) part it smooth within; then cut your incision of your gaffes accordingly, and set them in the clefts as even and as close as you can possibly,

*How to trim your Gaffes.*

**Y**E may gaffe your gaffes full as long as two or three trunchions, or cut gaffes, which ye may likewise gaffe withall very well, and be as good as those which do come of old wood, and often times better, as to gaffe a bough; for often it so happeneth, a man shall find of Oylets or eyes hard by the old slender wood, yet better

better it were to cut them off with the old wood, and chuse a better and fairer place at some other eye in the same grasse, and to make your incision thereunder, as a foresaid, and cut your grasses in making the incision on the one side narrow, and on the other side broad, and the inner side thin, and the outside thick, because the outside (of your grasse) must joyne within the cleft, with the sap of the barke of the wild stock, and it shall be so set in. See also that ye cut it smooth as your clefts are in the stock, in joyning at every place both even and close, and especially the joynts or corners of the grasses on the head of the stock, which must be well and clean pared before, and then set fast there in.

*How to cut grasses for Cherries and Plums.*

**I**T is not much requisite in the Healeme Chery, for to joyne the grasses (in the stock) wholly throughout, as it is in others, or to cut the grasses of great Cherries, Damsons, or Plums, so thin and plain as ye may other grasses, for these sorts have a greater sap or pith within, the which ye must alwaies take heed in cutting it too nigh on the one side, or on the other, but at the end thereof chiefly to be thin cut and flat.

*Note also.*

**A**ND yet if the said incision be straighter and closer on the one side then on the other side, pare it where it is most meet, and where it is too straight open it with a wedge of Iron, and put in a wedge of the same wood above in the cleft, and thus may ye moderate your grasses as ye shall see cause.

*How in graffing to take heed that the bark do not rise.*

**I**N all kinde of cutting your grasses, take heed to the bark of your grasses that it do not rise (from the wood) on no side thereof, and specially on the outside, therefore ye shall leave it thicker then the inner side: Also ye must take heed when as the stocks do wreath in cleaving, that ye may joyne the grasse therein accordingly: the best remedy therefore is to cut it smooth within, that the grasse may joyne the better: ye shall also unto the greatest stock, chuse for them the greatest grasses.

*How to cut your stocke.*

**H**OW much the more your stock is thin and slender, so much more ye ought to cut him lower, and if your stock be as great as your finger, or thereabouts, ye may cut him a foot or halfe a foot from the earth, and dig him about, and dung him with Goats

dung, to help him withall, and graffe him but with one grasse, or  
Clons of the same tree, and let the eye be as big as a good shaffe, or

*If the wild stock be great and slender.*  
**I**f your wild stock be great, or as a big as a good shaffe, ye shall cut  
him round off, a foot or thereabouts above the earth, then set  
two good grasses in the head or cleft thereof, as they may be

*Trees as great as one arme.*  
**W**hen your stock is as great as your arme, ye shall saw him  
off three or four foot, or thereabouts, from the earth, for  
to defend him, and set in the head three grasses, two in the cleft,  
and one betwixt the barke and the tree, on that side where ye may  
have most space.

*Great trees as big as your leg.*  
**I**f the stock be as big as your leg, or thereabouts, ye shall saw  
him faire and cleane off, four or five foot high from the earth, and  
cleave him across (if ye will) and set in four grasses in the clefts  
thereof, or else one cleft onely, and set two grasses in both the sides  
thereof, and other two grasses betwixt the barke and the tree.

*When the grasses be pinched with the stock.*

**Y**e must for the better understanding, marke the grasse betwixt  
the bark and the tree, for when the sap is full in the wood  
of wild stocks being great, then they do commonly pinch or wounding  
the grasses too sore, if ye do not put a smal wedge of green  
wood in the cleft thereof, to help them withall against such dan-  
ger.

*How ye ought to cleave your stock.*  
**W**hensoever ye shall cleave your wild stocks, take heed that ye  
cleave them not in the midst of the heart or pith, but a little  
on the one side, which ye shall think good.

*How to graffe the branches of great trees.*  
**V**hensoever ye would graffe great trees, as great as your  
thigh or greater, it were much better to graffe the bran-  
ches thereof, then the stock or body; for the stock wil rot before the  
grasses shall cover the head.

*How to cut branches old and greene.*  
**I**f the branches be too rude, and without order, the best shall be  
to cut them all off, and within three or four years after they will  
bring faire new Clons again, and then it shall be best to graffe  
them,

them, and cut off all the superfluous and ill branches thereof.

*How ye ought to bind your graffen throughout for fear of winds.*

**A**nd when your graffes shall be grown, ye must bind them, for fear of shaking of the wind; and if the tree be free and good of himself, let the Cions grow till, and ye may graffe any part or branch ye will in the cleft, or betwixt the barked and the tree, either in the Scutchion, if your barke be fair and loose.

*To set many graffes in one cleft.*

**W**hen ye will put many graffes in one cleft, see that one itself (of your graffe) be as large as the others, not to be put in to the cleft so slightly and rashly, and that one side thereof be not more open then the other, and that these graffes be all of one length: it shall suffice also, if they have three eyes one each graffe without the joynt thereof.

*How to saw your stock before ye cleave him.*

**I**N sawing your stock, see that ye tear not the bark about the head thereof, then cleave his head with a long sharp knife, or such like, and knock your wedge in the midst thereof, (then pare him on the head round about) and knock your wedge in so deep till it open meet for your graffs, but not so wide; then holding in one hand your graffe, and in the other hand your stock, set your graffe in close, bark to bark, and let your wedge be great above at the head, that ye may knock him out fair and easily again.

*If the stock cleave too much, or the barke do open.*

**I**F the stock do cleave too much, or open the bark with the wood too low, then softly open your stock with your wedge, and see if your incision of your graffe be meet and just according to the cleft; if not, make it until it be meet, or else saw him off lower.

*How graffes never lightly take.*

**A**Bove all things ye must consider the meeting of the two saps, betwixt the graffe and the wild stock, which must be set in just one with another: for ye shall understand, if they do not joyn, and the one delight with the other, being even set, they shall never take together, for there is nothing to joyn their increase, but only the sap, recounting the one against the other.

*How to set the graffe right in the cleft.*

**V**hen the bark of the stock is thicker then the graffe, ye must take good heed, of the setting in of the graffe in the

the cleft, to the end that his sap may joyn right with the sap of the stock, on the inside; and ye ought likewise to consider of the sap of the stock, if he do surmount the grasses on the out sides of the cleft too much, or not.

*Of setting in the grasses.*

**A**lso ye must take good heed, that the grasses be well and clean set in, and joyn close upon the head of the stock. Likewise that the incision which is set in the cleft, do joyn very well within on both sides, but sometimes it may do service, when as the grasses do draw too much from the stock, or the stock also on the grasses do put forth.

*Note also.*

**W**hen the stock is rightly cloven, there is no danger in cutting the incision of the grasse, but a little straight rebated to the end thereof, that the sap may joyn one with the other, the better and closer together.

*How ye ought to draw out your wedge.*

**W**hen your grasses shall be well joyned with the stock, draw your wedge faire and softly forth, for fear of displacing your grasses, ye may leave within the cleft a small wedge of such green wood as is aforesaid, and ye shall cut it off close by the head of your stock, and so cover it with a barke as followeth.

*To cover your clefts on the head.*

**W**hen your wedge is drawn forth, put a green pill of thick bark of Willow, Crab, or Apple, upon your clefts of the stocks, that nothing do fall between: then cover all about the clefts on the stock head, two fingers thick with good Clay, or nigh about that thickness, that no wind nor raine may enter. Then cover it round with good Moss, and then wreath it over with clothes, or peels of Willow, Brier or Oziers, or such like, then bind them fast, and stick certain long prickles on the grasse head amongst your Gions, to defend them from the Crows, Javes, or such like.

*How ye ought to see to the binding of your Grasses.*

**B**ut alwaies take good heed to the binding of your heads that they wax not slack or sag, neither on the one side or other, but remain fast upon the Clay, which Clay must remain fast (likewise on the stock head) under the binding thereof; wherefore the said Clay must be moderated in such sort as followeth.

*How*



*How ye ought to temper your Clay.*

**T**He best way therefore is to try your clay between your hands, for stones and such like, and so to temper it as ye shall thinke good, if so it require of moistnesse or drynesse, and to temper it with the haire of beasts: for when it dryeth, it holdeth not (otherwise) so well on the stock, or if ye knead of Masse therewith, or mingle Hay thin therewith: some do judge that the Moiss doth make the tree moist; But I thinke (saith he) that commeth of the disposition of places.

*To bush your grasse head.*

**W**hen ye shall bind or wrap your grasse head with a band, take small thornes, and bind them within, for to defend your grasses from Kites or Crows, or danger of other fowles, or prick sharp white sticks thereon.

*The second way to grasse high branches on trees.*

**T**He second manner to grasse, is strange enough to many: This kind of grassing is on the tops of branches of Trees: which thing to make them grow lightly, is not so soon obtained: where-soever they be grafted, they do only require a faire young wood, a great Cion or twig, growing highest in the tree top, which Cions ye shall chuse to grasse on, of as many sorts of fruit as ye will, or as ye shall thinke good, which order followeth.

**T**ake grasses of other sorts of trees, which you will grasse in the top thereof, then mount to the top of the trees which ye would grasse, and cut off the tops of all such branches, or as many as ye would grasse on, and if they be greater then the grasses, which ye would grasse, ye shall cut and grasse them lower as ye do the small wild stock aforesaid. But if the Cions that you cut be as great as your grasse that you grasse on, ye shall cut them lower betwixt the old wood and the new, or a little more higher or lower: then cleave a little, and chuse your grasses in the like sort, which ye would plant, whereof ye shall make the incision short, with the barke on both sides like, and as thick on the one side as the other, and set so just in the cleft, that the barke may be even and close, as well above as beneath, on the one side as the other, and so binde him as is aforesaid. It shall suffice that every grasse have an oylet, or eye, or two at the most, without the joynt, for to leave them too long it shall not be good, and ye must dresse it with Clay and Masse, and bind it, as is aforesaid. And likewise ye may Grasse these, as

ye do the little wild stocks, which should be as great as your grasses, and so graffe them, as ye do those with Sap like on both sides, but then ye must graffe them in the earth, as three fingers of, or thereabouts,

### The manner of Graffing of grasses which may be set betwixt the barke and the Tree.

*To graffe betwixt the barke and the Tree.*

**T**his manner of graffing is good, when trees do begin to enter into their Sap, which is about the end of *February*, unto the end of *April*, and especially on great wild stocks, which be hard to cleave, ye may set in four or five grasses in the head thereof, which grasses ought to be gathered afore, and kept close in the earth till then, for by that time aforesaid, ye shall scanty find a tree, but that he doth put forth or bud, as the Apple called *Capendu*, or such like. Ye must therefore saw these wild stocks more charily, and higher, so they be great, and then cut the grasses which ye would set together, so as you would set them upon the wild stock that is clef, as is aforesaid. And the inclosed of your grasses must not be so long, nor so thick, and the barke a little at the end thereof must be taken away, and made in manner as a Launcet of Iron, and as thick on the one side as the other.

*How to drasse the head, to place the grasses betwixt the barke and the tree.*

**A**nd when your grasses be ready cut, then shall ye cleave the head of your stock, and pare it with a sharp knife, round about the bark thereof; to the end your grasses may joyne the better thereon; then by and by take a sharpe pen-knife, or other sharpe pointed knife, and thrust it downe betwixt the barke and the stock, so long as the incision of your grasses be, then put your grass softly downe therein in the hard joynt: and see that it doth sit close upon the stock head.

*How to cover the head of your stock.*

**W**hen as ye have set in your grasses, ye must then cover it wel about with good tough Clay and Mofte, as is said of the others, and then you must incontinent environ or compass your head with smal thorny bushes, and bind them fast thereon all about for feare of great birds, and likewise the wind.

*Of the manner of graffing in the Shield or Scutchion.*

**T**He fourth manner to graffe, which is the last, is to graffe in the Scutchion, in the sap, in Sommer, from about the end of the moneth of *May*, until *August*, when as trees be yet strong in sap and leaves, for otherwaies it cannot be done; the best time is in *June* and *July*, so it is some years when the time is very dry, that some trees do hold their sap very long, therefore ye must tarry till it returne.

*For to graffe in Sommer so long as the trees be full leaved.*

**F**OR to begin this manner of graffing well, ye must in Sommer when the trees be almost full of sap, and when they have sprang forth new shoots, being somewhat hardned, take a branch thereof in the top of the tree, the which ye will have graffed, and chuse the highest and the principallest branches, without cutting it from the old wood, and chuse thereof the principallest oylet or eye, or budding place, of each branch one; within which oylet or eye, ye shall begin to graffe as followeth.

*The big Clons are best to graffe.*

**P**Rincipally ye must understand, that the smallest and naughty oylets or buds of the said Clons be not so good to graffe, therefore chuse the greatest and best ye can find; first cut off the leafe hard by the oylet, then ye shall trench or cut (the length of a barley corne) beneath the oylet round about the barke, hard to the wood, and so likewise above: then with the sharp point of a knife, slit it down half an inch beside the oylet or bud, and with the point of a sharp knife softly raise the said shield or Scutchion round about, with the oylet in the middell, and all the sap belonging thereunto.

*How to take off the shield from the wood.*

**A**ND for the better raising your said shield or Scutchion from the wood, after that ye have cut him round about, and then slit him down, without cutting any part of the wood within, ye must then raise the side next you that is slit, and take the same shield betwixt your fingers and thumb, and pluck or raise it softly off, without breaking or bruising any part thereof, and in the opening or plucking it off, hold it with your finger hard to the wood, to the end the sap of the oylet may remaine in the shield, for if it go off (in plucking it) from the barke, and stick to the wood, your Scutchion is nothing worth.

*To know your Scutchion or shield when he is good or bad.*

**A**ND for the more easie understanding, if it be good or bad, when it is taken from the wood, look within the said shield, and if ye shall see it crack, or open within, then it is of no value, for the chief sap doth yet remaine behind with the wood, which should be in the shield; and therefore ye must chuse and cut another shield, which must be good and sound, as aforesaid, and when your Scutchion shall be well taken off from the wood, then hold it dry by the oylet or eye betwixt you lips, until you have cut and taken off the barke from the other Cion or branch, and set him in that place, and look that ye do not soule or wet it in your mouth.

*Of young trees to graffe on.*

**B**UT ye must graffe on such trees, as be from the bignesse of your little finger, unto as great as your arme, having their barke thin and slender, for great trees commonly have their barke hard and thick, which ye cannot well graffe this way, except they have some branches with a thin smooth barke, meet for this way to be done.

*How to set or place your shield.*

**Y**E must quickly cut off round the barke of the tree that ye will graffe on, a little longer then the shield that ye set on, because it may joyn the sooner and easier, but take heed that in cutting off the barke, ye cut not the wood within.

*Note also.*

**A**Fter the incision once done, ye must then cover both the sides on ends well and softly with all, with a little bone or horne, made in manner like a thin skin, which ye shall lay all over the joynts or closings of the said shield, somewhat longer and larger, but take heed for hurting or crushing the barke thereof.

*How to lift up the barke, and to set your shield on.*

**T**HIS done, take your shield or Scutchion, by the oylet or eye that he hath, and open him faire and softly by the two sides, and put them straight way on the other tree, whereas the barke is taken off, and joyn him close barke to barke thereon; then plain it softly above and at both the ends with the thin bone, and that they joyn above and beneath barke to barke, so that he may feed well the branch of that tree.

*How*

*How to bind on your shield.*

**T**His done, ye must have a wreath of good hemp, to bind the said shield on his place: the manner to bind it is this, ye shall make a wreath of Hemp together as great as a Goose-quill, or thereabouts, or according to the bigness or smallness of your tree: then take your hemp in the midst, that the one halfe may serve for the upper halfe of the shield, in winding and crossing (with the hemp) the said shield on the branch of the tree, but see that ye bind it not too straight, for it shall let him from taking or springing, and likewise their sap cannot easily come or passe from the one to the other: and see also that wet come not to your shield, nor likewise the hemp that ye bind it withal: Ye shall begin to bind your Scutcheon first behind in the midst of your shield, in coming still lower and lower, and so recover under the oylet and taile of your shield, binding it nigh together, without recovering of the said oylet, then ye shall returne againe upward, in binding it backward to the midst where ye began. Then take the other part of the hemp, and bind so likewise the upper part of your shield, and encrease your hemp as ye shall need, and so return againe backward, and ye shall bind it so, till the fruits or clefts be covered (both above and beneath) with your said hemp, except the oylet and his taile, the which ye must not cover, for that taile will shed apart, if the shield do take.

*On one tree ye may graffe or put two or three shields.*

**Y**E may very well if ye will, on every tree graffe two or three shields, but see that one be not right against the other, nor yet of the one side of the tree; let your shields so remain bound on the trees, one moneth or more, after they be graffed, and the greater the tree is, the longer to remain, and the smaller the lesser time.

*The time to unbind your shield.*

**A**Nd then after one moneth, or six weeks past, ye must unbind the shield, or at the least cut the hemp behind the tree, and let it so remaine the Winter next following, and then about the moneth of *March* or *Aprill* if ye will, or when ye shall see the sap of the shield put forth, then cut the branch off three fingers above the shield, or thereabouts.

*How to cut and govern the branches graffed on the trees.*

**T**hen in the next year after that the Cions shall be well strengthened, and when they do begin to spring, then shall ye cut them



them all hard off, by the shield above; for if he had cut them so nigh in the first year, when they began first to spring or bud, it should greatly hinder them against their increase of growing: also when those Gions shall put forth a faire wood, ye must bind and stay them in the midst, faire and gently with small wands, or such like, that the wind and weather hurt them not. And after this manner of grafting, which is practised in the shield or Scutchion way ye may easily graffe the White Rose on the Red; and likewise ye may have Roses of diuers colours and sorts, upon one branch or root. This I thought sufficient and meet to declare of this kind of grafting at this present.

## CHAP. VI.

### This Chapter treateth of transplanting or altering of Trees.

*The sooner ye transplant or set them, it shall be the better.*



Enough to transplant or set your trees from *Alballontide* unto *Adarch*, and the sooner the better, for as soon as the leaves are fallen from the trees, they be meet for to be planted, if it be not in a very cold or moist place, the which then it were best for to tarrie unto *January* or *February*: to plant in the frost is not good.

*To plant or set towards the South, or Sunnie place is best.*

**A**fore ye do pulck up your trees for to plant them, if ye will marke the South side of each tree, that when ye shall re-plant them, ye may set them again as they stood before, which is the best way as some do say. Also if ye keep them a certaine time, after they be taken out of the earth, before ye plant them again, they will rather recover therein the earth, so they be not wet with raine, nor otherwise; for that shall be more contrary to them, then the great heat or drought.

*How to cut the branches of trees, before they be set.*

**W**hensoever ye shall set or re-plant your trees, first ye must cut off the boughes, and especially those which are great branches, in such sort that ye shall leave the small ewigs or sprigs on the

the stocks of your branch, which must be but a shaftment long, or somewhat more, or else, according as the tree shal require, which ye do see.

*Apple trees constantly must be disbranched before they be replanted or set.*

**A**nd chiefly the Apple trees, being Graffed or not Graffed, do require to be disbranched before they be set again; for they shal prosper thereby much the better: the other sort of trees may wel passe unbranched, if they have not too great or large branches: and therefore it shal be good to transplant or set as soon after as the graffes are closed, on the head of the wild Rock; as for smal trees, which have but one Glon or twig, it needs not to cut them above, when they be replanted or removed.

*All wild stocks must be disbranched when they are replanted or set.*

**A**ll wild trees or stocks, which ye thinke for to graffe on, ye must first cut off all their branches before ye set them againe: also it shal be good, alwaies to take heed in replanting your trees, that ye doe set them againe in as good or better earth then they were in before, and so every Tree according as his nature doth require.

*What trees love the faire Sonne, what trees the cold aire.*

**C**ommonly the most part of trees do love the Sonne at Noone, and yet the South wind (or vent d'aval) is very contrary against their nature, and specially the Almond tree, the Apricock, the Mulberry tree, the Fig tree, and the Pomgrahado tree. Certaine other trees there be which love cold aire, as these: The Chestnut tree, the wild and eager Chery tree, the Quince tree, & the Damson or Plum tree, the Walnut loveth cold aire and a stony white ground. Pearre trees love not greatly plaine places, they prosper wel enough in places closed with walls, or high hedges, and specially the Pearre called *Don Christen*.

*Of many sorts and manner of trees following their nature.*

**T**he Damsons or Plum tree doth love a cold fat earth, and clay withal, the (Healme) great Chery doth love to be set or planted upon clay. The Pine tree loveth light earth, stonie and sandy. The Medlar doth well enough in all kinde of ground, and doth not hinder his fruit to be in the shadow and moist place. Hazel nut trees love the place to be cold, leane, moist and sandy. Ye shal understand, that every kinde of fruitfull tree doth love

love

love, and is more fruitfull in one place, then another, as according unto their nature. Nevertheless yet we ought to nourish them (all that we may) in the place where we set them in, in taking them from the place and ground they were in. And ye must also consider when one doth plant them, of the great and largest kind of trees, that every kind of tree may prosper and grow, and it is to be considered also, if the trees have commonly growne afore so large in the ground or not; for in good earth the trees may well prosper and grow, having a good space one from another, more then if the ground were leane and naught.

*How to place or set trees at large.*

**I**N this thing ye shall consider, ye must give a competent space from one tree to another, when as ye make the holes to set them in, not nigh, nor that one tree touch the other. For a good tree planted, or set well at large, it profiteth oftentimes more of fruit then three or foure trees set too nigh together. The greatest and largest trees commonly are Walnuts, and Chestnuts, if yee plant them severally in rank, as they doe commonly grow upon high waies, besides hedges and fields; they must be set 35. foot a sinder, one from another, or thereabouts, but if ye will plant many ranks in one place together, ye must set them the space of 45. foot one from another, or thereabouts, and so farre ye must set your ranks one from another. For the Pear trees and Apple trees, and other sort of trees, which may be set of this largenesse one from the other, if ye do plant onely in ranks by hedges in the fields or otherwise, it shall be sufficient of 20. foot one from another. But if ye will set two ranks upon the sides of your great Allyes in gardens, which be of ten or twelve foot broad, it shall be then best to give them more space, the one from the other in each rank, as about 25. foot; also ye must not set your Trees right one against the other, but entremedling or between every space, as they may best grow at large, that if need be, ye may plant of other smaller trees between, but see that ye set them not too thicke. If ye list to set or plant all your trees of one bignesse, as of young trees like rods, being Pearre trees, or Apple trees, they must be set a good space one from another, as of twenty or thirty foot in square, as to say, from one ranke to another. For to plant or set of smaller trees, as Plum trees, Apple trees, of the like bignesse, it shall be sufficient for them fourteen or fifteen foot space in quarters. But if ye will plant or set

two ranks, in your Allies in Gardens, ye must devise for to proportion it after the largenesse of your said Allies. For to plant or set eager or sower Chery trees, this space shal be sufficient enough the one from the other, that is, of ten or twelve foot; and therefore if you make of great or large Allies in your Garden, as of ten foot wide, or thereabouts, they shal come wel to passe, and shal be sufficient to plant your trees, of nine or ten foot space: and for the other lesser sorts of trees, as of Quince trees, Figge trees, Nut trees, and such like, which be not commonly planted, but in one ranke together.

*Ordering your trees.*

**W**Hen that ye plant or set rankes, or every kinde of trees together, ye shal set or plant the smallest towards the Sun, and the greatest in the shade, that they may not annoy or hurt the smal, nor the smal the great. Also whensoever ye wil plant or set Peare trees, and Plum trees ( in any place ) the one with another, better it were to set the Plum trees next the Sunne, for the Peares wil dure better in the shade. Also ye must understand, when ye set or plant any rankes and trees together, ye must have more space betwixt your rankes and trees, ( then when ye set but one ranke ) that they may have room sufficient on every side.

Ye shal also scarcely set or plant Peare trees, or Appletrees, or other great Trees, upon dead or Mossie barren ground unstirred, for they increase thereon to no purpose. But other lesser trees very wel may grow, as Plum trees, and such like: now when all the said things above be considered, ye shal make your holes according to the space that shal be required of every tree that ye shal plant or set, and also the placement for the same so much as ye may convenient, ye shal make your holes large enough; for ye must suppose the tree ye do set, hath not the halfe of his roots he shal have hereafter, therefore ye must help him and give him of good fat earth, ( or dung ) all about the roots when as yee plant him. And if any of the same roots be too long, and bruised and hurt, ye shal cut them cleane off slope wise, so that the upper side of each root so cut, may be longest in setting, and for the smal roots which come forth all about therok, ye may not cut them off at the great roots.

*How ye ought to enlarge the holes for your trees when ye plant them.*  
**W**hen as ye set the trees in the holes, ye must then enlarge the roots in placing them, and see that they take all downwards, without turning any roots the end upwards; and ye must not plant or set them too deep in the earth, but as ye shall see cause. It shall be sufficient for them to be planted or set (halfe a foot, or thereabouts) in the earth, so that the earth be above all the roots half a foot or more, if the place be not very burning and stonie.

*Of dung and good earth for ye plants and trees.*  
**A**nd when as ye would replant or set, ye must have of good fat earth or dung, well mingled with a part of the same earth, whereas ye took your plants out of, with all the upper crests of the earth, as thick as ye can have it: the said earth which ye shall put about the roots, must not be put too nigh the roots, for doubt of the dung being laid too nigh which will put the said roots in a heat; but let it be well mingled with the other earth, and well tempered in the holes; and the smallest and slenderest Clons that turne up among those roots, ye may plant therewith very well.

*If ye have wormes amongst the earth of your roots.*  
**I**f there be wormes in the fat earth or dung, that ye put about your roots, ye must mingle it well also with the dung of Oxen or Kings, or sleek Sope ashes about the roots, which will make the wormes to die, for otherwise they will greatly hurt the roots.

*To dig well the earth about the tree roots.*

**A**ll ye must dig well the earth, principally all round about the roots, and more often if they drie, then if they be wet; ye must not plant or set trees when it raineth, nor let the earth be very moist about the roots. The trees that be planted or set in vallies, commonly prosper wel by drought; and when it raineth, they that be on the hills are better by watering with drops then others; but if the place or ground be moist of nature, ye must plant or set your trees the deeper thereon.

*The nature of the place.*

**O**n high and drie places, ye must plant or set your trees a little more deep, then in the vallies; and ye must not fill the holes in high places, so full as the others; to the end that the raine may better moisten them.



*Of good earth.*  
**Y**E shall understand that of good earth commonly cometh good fruit; but in certain places (if that they might be suffered to grow) they would season the tree the better. Otherwise they shall not come to proof, nor yet have a good tast.

*With what ye ought to bind your trees.*  
**W**hensoever your trees shall be replanted or set, ye must knock in (by the roote) a stake, and bind your trees thereto for fear of the wind: and when they do spring, ye shall dresse them and bind them with bands that may not break, which bands may be of strong soft Herbs, as Bulrushes or such like; or of old linen clothes, if the other be not strong enough; or else ye may bind them with Oziars, or such like; but for fear of freezing or hurting your trees,

*When ye ought to water your trees.*  
**C H A P. VII.**  
**This Chapter treateth of mediencing and keeping the Trees when they are planted.**

*The first counsel is, when your trees be newly planted, they must be watered.*

**T**He young trees which be newly planted, must sometimes in Summer be watered when the time waxeth drie, at the least the first year after they be planted or set. But as for other greater trees which are wel taken & rooted a good time, ye must dig them all over the roots after *Althowide*, and uncover them four or five foot compass about the roote of the tree; and let them so lie uncovered until the latter end of Winter. And if ye do then mingle about each tree of good fat earth or dung, to heat and comfort the earth withall, it shall be good.

*With what ye ought to dung your trees.*  
**A**Nd principally unto Mossie trees, dung them with Hogs dung mingled with other earth of the same ground, & let the dung of Oxen be next about the roots; and ye shall also abate the Moss of the trees with a great knife of wood, or such like, so that ye hurt not the barke thereof.

*When ye ought to uncover your trees in Summer.*  
**I**N the time of Summer, when the earth is scanty half moist, it shall be good to dig at the foot of the trees, all about the roots of

such as have not been uncovered in the Winter before, and to mingle it with good fat earth: and to fill it againe, and they shall do well.

*When ye ought to cut or prune your trees.*

**A**nd if there be in your trees certain branches of superfluous wood, that ye will cut off, tarry until the time of the entering in of the sap, that is, when they begin to bud, as in *March* and *April*: Then cut off as ye shall see cause, all such superfluous branches hard by the tree, that thereby the other branches may prosper the better, for then they shall sooner close the sap upon the cut places then in the Winter, which should not do so well to cut them, as certaine do teach which have not good experience. But for so much as in this time trees be entering into the sap, as is aforesaid: Take heed therefore in cutting then off your great branches hastily that through their great weight, they do not cleave or seporate the bark from the tree, in any part thereof,

*How to cut your great branches and when.*

**A**nd for the better remedie: First you shall cut the same great branches, half a fope from the tree, and after to saw the rest clean hard by the body of the tree, then with a broad Chisel, cut all clean and smooth upon that place, then cover it with Ox dung. Ye may also cut them well in winter, so that ye leave the Trunk or branch somewhat longer, so as ye may dresse and cut them again in *March* and *April*, as is before mentioned.

*How ye ought to leave the great branches cut.*

**O**ther things here are to be shewed of certaine great and old trees onely, which in cutting the great branches thereof truncheon-wise, do renew againe, as *Walnuts*, *Mulberry trees*, *Plum trees*, *Cherry trees*, with others, which ye must disbranch the boughes thereof, even after *Alhallontide*, or as soon as their leaves be fallen off, and likewise before they begin to enter into Sap.

*Of trees having great branches.*

**T**he said great branches when ye shall disbranch them, ye shall so cut them off in such Trunchions, to lengthen the tree, that the one may be longer then the other, that when the Cions be grown good and long thereon, ye may graffe on them againe as ye shall see cause, according as every arme shall require.

## Planting and Graffing.

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*Of barrenesse of trees, the time of cutting ill branches, and of uncovering the roots.*

Sometimes a man hath certain old trees, which be almost spent, as of the Pear trees, and Plum trees, and other great trees, the which bare scant of fruit: but when as ye shall see some branches well charged therewith, then ye ought to cut off all the other ill branches and boughes, to the end that those that remaine may have the more sap to nourish their fruit, and also to uncover their roots after *Albionide*, and to cleave the greatest roots thereof (a foot from the trunk) and put into the said clefts a thin slate of hard stone; there let it remaine, to the end that the humur of the tree may enter out thereby, and at the end of Winter, ye shall cover him againe, with as good and fat earth as ye can get, and let the stone alone.

*Trees which ye must help, or pluck up by the roots.*

All sorts of trees which spring Cions from the roots, as Plum trees, all kind of Chery trees, and small Nut trees, ye must help in plucking their Cions from the roots in Winter, as soon as conveniently ye can, after the leaf is fallen. For they do greatly pluck down and weaken the said trees, in drawing to them the substance of the earth.

*What doth make a good Nut.*

But chiefly to plant these Cions, the best way is to let them grow and be nourished two or three years from the root, and then to transplant them or set them in the Winter, as is aforesaid. The Cions which be taken from the foot of the Hazell trees, make good Nuts, and be of much strength and vertue, when they are not suffered to grow too long from the root, or foot aforesaid.

*Trees eaten with beasts, must be grafted againe.*

When certaine grasses being well in Sap, of three or four years or thereabouts be broken, or greatly endamaged with beasts, which have broken thereof, it shall little profite to leave those grasses so, but it were better to cut them, and to graffe them higher or lower then they were before. For the grasses shall take as well upon the new as old Cion being grafted on the wild stock: But it shall not so soon close, as upon the wild stock head.

*How your wild stocks ought not hastily to be removed.*

IN the beginning when ye have grafted your grasses on the wild stock, do not then hastily pluck up those Cions, or wild stocks

so grafted, untill ye shall see the grafted put forth a new shoot, the which remaining still, ye may graffe thereon againe, so that your grafted in hasty removing may chance to die.

*When to cut off the naughty Clons from the wood.*  
**W**hen your grafted on the stocks shall put forth new wood, or a new shoot, as of two or three foot long, and if they put forth also of other small superfluous Clons (about the said members or branches that ye would nourish) cut off all such ill Clons hard by the head, in the same year they are grafted in, but not so long as the wood is in sap, till the winter after.

*How sometimes to cut the principall members.*  
**A**lso it is good to cut some of the principall members or branches, in the hilt year, if they have too many, and then againe, within two or three years after, when they shall be well sprung up, and the grafted well closed on the head of the stock, ye may trim or dresse them againe, in taking away the superfluous branches, if any there remain: for it is sufficient enough to nourish a young tree, to leave him one principal member on the head, so that he may be one of those, that have been grafted on the tree before, yea, and the tree shall be fairer and better in the end then if he had two or three branches, at the foot. But if the tree have been grafted with many great Clons, then ye must leave him more largely, according as ye shall see cause or need, to recover the clefts on the head of the said grafted or stock.

*How to guide and govern the said trees.*  
**W**hen that your trees do begin to spring, ye must order and see to them well, the space of three or four years, or more, until they be well and strongly grown, in helping them above, in cutting the small twigs and superfluous wood, until they be so high without branches as a man, or more if it may be, and then see to them well, in placing the principal branches, if need be, with forks or wands prickt right and well about them at the foot, and to prune them, so that one branch do not approach too nigh the other, nor yet fret one the other, when as they do enlarge and grow, and ye must cut off certaine branches in the tree, whereas they are thickest.

*A kind of sickness in trees.*  
**W**hen certaine trees are sick of the Gall, which is a kind of sickness that doth eat the barks, there ye must cut it, and

and take out all the same infection with a Chisel, or such like thing. This must be done at the end of Winter; then put on that infected place of Ox dung, or Hogs dung, and bind it fast thereon with clouts, and wrap it with Oziars, to let it remain a long time, till it shall recover again.

*Trees which have wormes in the barke.*

**O**f trees which have wormes within their barks, whereas ye shall see a swelling or rising therein, there ye must cleave the said bark unto the wood, to the end the humour may also diminish out thereat, and with a little hook ye must pluck or draw out the said wormes, with all the rotten wood that ye can see; then shall ye put upon the said place, a plaister made of Ox dung, or Hogs dung mingled and beaten with Sage, and a little of unlickt Lime, then let it be well blended together, and spread it on a cloth, and bind it fast and close thereon so long as it will hold. The Lees of Wine tied or poured upon the roots of tree (the which be somewhat sick through the coldness of the earth) doth them much good.

*Snailles, Ants, and Wormes doo mar trees.*

**A**lso ye must take heed of all manner of young trees, and specially of those grasse, the which many Wormes and Flies do endamage and hurt in the time of Sommer; those are the Snailles, the Fishiers, or Ants: the field Snail which hurteth also all other sorts of trees that be great, principally in the time that the Cuckow doth sing, and betwixt April and Midsummer, while they be tender. There be little beasts called Sowes, which have many legs, and some of them be gray, some black, and some have a long sharpe snout, which be very noisome, and great hurters of young grasse, and other young trees also, for they cut off in eating the tender tops (of the young Cions) as long as ones finger.

*How ye ought to take the said wormes*

**F**or to take them well, ye must take heed and watch in the heat of the day (your young trees) and where you shall see any, put your hand softly underneath, without shaking the tree, for they will sodainly fall when one thinks to take them; therefore so soon as ye can, (that they flye not away nor fall) take him (quickly on the Cion) with your other hand.



**F**Or to keepe the young trees from Snailles and Antt, it shall be good to take Ashes and to mingle unslackt Lime, beaten in powder therewith, then lay it all about the root of the tree, and when it raineth, they shall be beaten downe into the Ashes and die: but ye must renew your Ashes after every raine from time to time; also to keep them moist, ye must put certain small vessels full of water at the foot of your said trees, and also the Lees of Wine, to be spread on the ground there all abouts. For the best destroying of the smal snailles on trees, ye must take good heed in the spring time before the trees be leaved; then if ye shall see as it were smal warts, knobs or branches on the trees, the same will be snailles. Provide to take them away faire and softly, before they be full closed, and take heed that ye hurt not the wood or barke of the said tree as little as ye can; then burn those branches on the earth, or all to tread them under your feet, and then if any do remaine or renew, look in the heat of the day, and if ye can see any, which wil commonly be on the clefts or forkes of the branches, and also upon the branches lying like tofts or tops together, then wrap your hands all over with old clothes (and bind leaves beneath them, and above them) and with your two hands rub them down therein, and straight way fire it, if ye doe not quickly with diligence, they will fall, and if they fall on the earth, ye cannot lightly kill them, but they will renew againe: these kinde of worms are noisome, Flies which be very strange, therefore take heed that they do not cast a certaine rednesse on your face and body; for whereas there be many of them, they be dangerous: it is strange to tell of these kind of Wormes, if ye come under or among the trees whereas be many, they will cast your face and hands (your covered body, as your neck, breast and armes) full of smal spots, some red, some black, some blewish, which will so tingle and trouble you like Nettles, sometimes for a day, or a day and a night after: they be most on Plum trees, and Apple trees, nigh unto moist places, and ill after: yet nevertheless by the grace of God there is no danger (that I understand) to be taken by them. Ye shall understand, that if it be in the evening, or in the morning, when it raineth, they will remaine about the grafting place of the tree, therefore it wil be hard to finde them, because they are so smal. Moreover, if such branches do remain in the upper part of the boughes or tree,

ye shall put drie straw under the boughes, then with a wisp on a poles end, set fire on all and burn them.

*A note in Spring time of Fumigation.*

**H**ere is to be understood and noted, that in the Spring time onely, when trees do begin to put forth leaves and blossoms, ye must then alwaies take heed unto them, for to defend them from the frost (if there come any) with Fumigation or smoke, made on the wind side of your Orchards (or under your trees) with straw, hey, drie chaffe, drie Ox dung, or saw-dust dried in an Oven, or Tanners Oze dried likewise, or *Galbanum*, or old shooes, thatch of houses, or haie, and such like, one of these to be mingled with the other: all these be good against the Frost in the Spring time, and specially good against the East wind, which breedeth (as some say) the Caterpillar worme.

*To defend trees from the Caterpillar.*

**S**ome do defend their trees from the Caterpillar, when the blossoming time is dried (if there be no frost) by casting of water, or salt water, every second or third day upon their trees (with instruments for the same, as with Squires of Wood or Brasse, or such like) for in keeping of them moist, the Caterpillar cannot breed thereon: this experience have I known proved of late to be good. For to conclude, he that will set or plant trees, must not passe for any paines, but have a pleasure and delight therein, in remembering the great profit that commeth thereby: Against scarcenesse of Corne, fruit is a good stay for the poor, and often it hath been seen, one Acre of Orchard ground, worth four Acres of Wheat ground.

**H**

**Here**



*Here followeib a little Treatise, how one may  
Graffe & Plant artificially, and Dextrously, and  
to make many things very strange in Gardens.*

**F**OR to Graffe a subtile way, take one oylet, or eye of  
a Graffe, slit it round aboue and beneath, and then  
behind down right, wreath him off, and set him  
upon another Cion, as great as he is, then dress him,  
as is aforesaid, and he shall grow and bare.

**F**OR to graffe one Vine upon another, ye shall cleave him as ye  
do other trees, and then put the Vine graffe in the cleft, then  
stop him close and well with wax, and so bind him, and he shall  
grow.

**Y**E shall uncover his root, & make a hole with a Piercer, or small  
Auger, in the greatest root he hath, without piercing through  
the root, then put in a pin (in the said hole) of dry wood (as Oak or  
Ash) and so let it remain in the said hole, and stop it close again  
with wax, and then cast earth and cover him again, and he shall  
bear the same year.

*For to haue Peaches two moneths before others.*

**T**AKE your Cions of a Peach tree that doth soon blossom in the  
Spring time, and graffe them upon a franke Mulbery tree, and  
he shall bring forth Peaches two moneth before others.

*To haue Damsons or other Plums unill Alballontide.*

**F**OR to haue Damsons all the Sommer long untill Alballontide,  
and of many other kind of sorts likewise, ye shall graffe  
them

them upon the Goosebery tree, upon the Franke Mulbery tree, and upon the Cherry tree, and they shall endure upon the trees till *Alballonside*.

*To make Medlars, Cherries, and Peaches in eating to tast like spice.*

**F**Or to make Medlars, Cherries and Peaches, to tast in the eating pleasant like spice, the which ye may also keepe untill now come again : ye shall graffe them upon the franke Mulbery tree, as I have afore declared, and in the graffing ye shall wet them in Hony, and put a little of the powder of some good spices, as the powder of Cloves, of Cinamon, or Ginger.

*To make a Muscadell taste.*

**F**Or to make a Muscadell taste, take a Gouge or Chisel of Iron, (and cut your sap round about) then put in your Gouge or Chisel, under your sap on your Cion, and raise three eyes or oylers round about, and so take off faire and softly your bark round about and when it is so taken off, anoint it all over within the bark, with powder of Cloves or Nutmegs, then set it on again, and stop it close with wax round about, that no water may enter in, and within thrie bearing, they shall bring a faire Muscadell Relison, which ye may after both graffe and plant, and they shall be all after a Muscadell fruit : some slit the barke downe, and so put in of Spice.

*To set Apples and Pears to come without blossoming.*

**F**Or to make Apples and Pears, and other sorts of fruit to come without blossoming, that is, ye shall graffe them (as ye doe other kind of fruit) upon the Fig tree.

*To have Apples and Chestnuts rath, and also long on the trees.*

**F**Or to have Apples called (in French) *de blanc Durel*, or *de Troas*, and of Chestnuts very rath, and long (as unto *Alballonside*) on the trees ; and to make such fruit also to endure the space of two years, ye shall graffe them on a latterward fruit, as Pome Richard, or upon a Pear tree, or Apple tree of Dangoisse.

*To have good Cherries on the trees at Alballonside.*

**T**O have Cherries on many trees good for to eat unto *Alballonside*, ye shall graffe them upon a franke Mulbery tree, and likewise to graffe them upon a Willow, or Sallow tree, and they shall endure unto *Alballonside* on the trees.

*To have rath Medlars two moneths before others.*

**F**Or to have Medlars two months sooner then others: and the one shall be better far then the other, ye shall graffe them upon a Goosebery tree, and also a franke Mulbery tree, and before ye do graffe them, ye shall wet them in hony, and then graffe them.

*To have rath or timely Peares.*

**F**Or to have a rath Pear, the which is in France, as the Pear Calloret, and the Pear Hallowes. For to have them rath or soon, ye shall graffe them on the Pine tree: And for to have them late, ye shall graffe them on the Pear called in France *Dangosse*, or on other like hard Peares.

*To have Adistles or Medlars without stones.*

**F**Or to have Medlars without stones, the which shall tast sweet as hony, ye shall graffe them as the other, upon an Eglantine, or sweet Briar tree, and ye shall wet the grafts (before ye graffe them) in hony.

*To have Peares betimes.*

**F**Or to have the Pear *Angosse*, or *Pearmain*, or *Saigle*, (which be of certain places so called) a month or two before others, the which shall endure and be good untill the new come again, ye shall graffe them upon a Quince tree, and likewise upon the frank Mulbery tree.

*To have ripe and franke Mulberries very soon or late.*

**F**Or to have franke or ripe Mulberries very soone, ye shall graffe them upon a rath Pear tree, and upon the Goosebery tree, and to have very late, and to endure unto *Alballonside*, ye shall graffe them upon the Medlar tree,

*How to keepe Peares a year.*

**Y**E shall take of fine Salt very drie, and put thereof with your Peares into a barrel, in such sort, that one Pear doth not touch another, so fill the barrel if ye list, then stop it, and let it be set in some drie place, that the Salt do not wax moist, thus ye may keepe them long and good.

*To have your fruit tast halfe Apples, halfe Peares.*

**I**F you will have your fruit tast halfe a Pear, and halfe an Apple, ye shall in the spring take grafts, the one a Pear, and the other an Apple, ye shall cleave or pare them in the grafting joynt or place, and joyne halfe the Pear Clon, and so set them into your stock,



stock, and see well that no raine do enter therein upon your joynts, and that fruit shall bring thee halfe a Pearre, and the other halfe an Apple in fall.

*Time of graffing.*

**I**T is good also to graffe one or two dayes before the change, and no more, for looke so many more daies, as ye shall graffe before them, so may more yeares it will be ere your trees shall bring fruit: also it is good graffing all the increase of the Moon, but the sooner after the change the better.

*To graffe the Quince Apple.*

**I**F ye graffe the Quince Apple upon an Apple stock, ye shall not long continue without the Canker, but to graffe him on a knotty young Crabstock, he shall endure long without the Canker.

*To destroy Pismires, or Ants about a tree.*

**F**OR to destroy Emits or Ants, which be about a tree, if ye remove and stir the earth all about the root of the said tree, then put thereon all about, a great quantity of the soot of a Chimney, and the Ants or Pismires will either away, or else shortly die.

*Another for the same.*

**Y**E shall take of the sawdust of Oak wood onely and straw that all about the tree root, and the next raine that doth come, all the Pismires or Ants shall die there. For Earewigges, shooes stoppt with hay, and hanged on the tree one night, they come all in.

**To have Nuts, Plummes, and Almonds.**

*Nuts greater then other.*

**F**OR to have great Nuts, Plums, and Almonds greater then others; ye shall take four Nuts, or of any of this fruit above said, and put them into a pot of earth, joyning the one with the other as neere as ye can, then make a hole in the bottome of the pot, through the which holes these Nuts shall be constrained to issue and being so constrained, shall come to perfection and grow together as in one tree, the which in time shall bring fruit greater and larger then others.

*To make an Oak or other tree green in Winter as in Summer.*

**A**LSO to make an Oak or other tree to be green as well in Winter as in Summer, ye shall take the graffe of an Oake tree, or other tree, and graffe it upon the Holly tree: the best and most su-

rest way is, to graffe one through the other. Also who so will edifie or make an Orchard, he ought (if he can) so make it in a moist place whe eas the South winds, or Sea winds may have recourse unto them.

*The time of Planting without roots and with roots.*

Also the best time to plant or set without roots, as with branches or severings of all sorts of trees which hath a great pith, as Fig trees, Hasel trees, Mulberry trees, and Vines, with other like trees, all which ought to be set from the midst of September (if the leaves be off) unto *Albaltomide*; and all other trees with roots, ought to be set in Advent until *Christmas*, or a non after, if the time be not very cold and dangerous.

*To keep fruit from the Frost.*

Also to keep fruit from the frost, and in good colour, until the new come againe, ye ought so for to gather them when the time is faire and drie, and the Moon in her decreasing; and that they lie also in very drie places by night, covered thin with Wheat-straw, and if the time of Winter be cold and very hard, then put on Hay above them in your straw, and take it away when as a faire time commeth: and thus ye shall keep your fruit faire and good.

*The daies to Plant and Graffe.*

Also (as some say) from the first day of the New Moon, unto the 13. day thereof, is good for to plant, or graffe, or sow, and for great need, some do take unto the 17. or 18. day thereof, and not after, neither graffe nor sow, but as is a forementioned, a day or two daies before the change, the best signes are, *Taurus*, *Virgo* and *Capricorne*.

*To have green Roses all the year.*

For to have green Roses, ye shall (as some say) take your Rose buds in the Spring time, and then graffe them upon the Holly stock, and they shall be green all the year.

*To keep Reisons or Grapes good a year.*

For to keep Reisons or Grapes good all a whole year, ye shall take of good drie sand, and then lay your Reisons or Grapes therein, and it shall keep them good a whole year. Some keep them in a close Glasse from the aire.

*To make fruit laxative from the tree.*

For to make any fruit laxative from the tree, what fruit soever it be; make a hole in the stock, or in the master root of the tree, (with

(with a great Pearcer stopewife) not through, but unto the pith, or somewhat further, then fill the said hole with the juyce of Elder, of Centorie, or of *Senny* or *Turbith*, or such like laxatives, then fill the said hole therewith, of which of them ye will, or else ye may take three of them together, & fill the said hole therewith and then stop the said hole close, with soft wax, then clay it thereon, and put Mois very well over all, so that nothing may issue or fall out, and all the fruit of the said Tree shall be from thence forth laxative.

*Of the Soyle.*

**I**F your ground be barren (for some are forced to make an Orchard of barren ground) make a pit three quarters deep, and two yards wide and round in such places where you would set your trees, and fill the same with fat, pure, and mellow earth, one whole foot higher then your Soyle, and therein set your Plant. For who is able to manure an whole Orchard plot, if it be barren? But if you determine to manure the whole site, this is your way: Digge a trench halfe a yard deepe, all along the lower, (if there be a lower) side of your Orchard plot, casting up all the earth on the inner side, and fill the same with a good short, hot, and tender mucke, and make such another Trench, and fill the same as the first, and so the third, and so throughout your ground. And by this meanes your plot shall be fertile for your life. But be sure you set your trees, neither in dung, nor barren earth.

Your ground must be plaine, that it may receive and keepe moysture, not onely the Raine falling thereon, but also water cast upon it, or descending from higher ground by Sluces, Conduits, &c. For I account moysture in Summer very needfull in the soyle of Trees, and drought in Winter. Provided that the ground neither be boggy, nor the inundation be past 24. hours at any time, and but twice in the whole Summer, and so oft in Winter. Therefore if your plot be in a Banke, or have a descent, make trenched by degrees, Alleyes, Walkes, and such like, so as the water may be stayed from passage. And if too much water be any hinderance to your walkes (for drie walkes do well become an Orchard, & an Orchard them:) raise your walkes with earth first, & then with stones, as big as Walnuts, and lastly with gravel. In Summer you need not doubt too much water from heaven, either to hurt the health of your body, or of your trees. And if overflowing molest you after one day, avoid it then by deep trenching.

Grasse also is thought needfull for moysture, so you les it not touch the roots of your trees: for it will breed mosse, and the boall of your tree neer the earth would have the comfort of the sun and ayre.

*Here*



Here followeth certaine wayes of Planting  
and Graffing, with other necessities herein

meet to be knowne.

To graffe one Vine on another.

**O**n that will graffe one Vine upon another, ye shall in February, cleave the head of the Vine, as ye do other stocks, and then put in your Vine graffe or Cion, but first ye must pare him thin, ere ye set him in the head, then Clay and Molle him as the other.

Chosen dayes in Graffe in, and to chosse your Cions.

**V**hensoever that ye will Graffe, the best choson time is on the last day before the change, and also in the change, and on the second day after the change, if ye graffe (as some say) on the third, fourth, and fifth day after the change, it will be as many yeares, ere those Trees bring forth fruit. Which thing ye may believe if ye will, but I wil not. For some do hold opinion, that it is good graffing from the change, unto the eighteen day thereof, which I thinke to bee good in all the increasing of the Moon, but the sooner the better.

To gather your Cions.

**S**uch Cions or Graffes, which ye do get on the other Trees, the young Trees of three or four yeares, or five or six yeares are best to have graffes. Take them off no under boughes, but in the top

upon the East side, if ye can, and of the fairest and greatest. Ye shall cut them two inches long of the old Wood, beneath the joynt. And whensoever ye will graffe, cut or pare your graffes taperwise from the joynt, two inches or more of length, which ye shall set into the stock: and before ye set it in, ye shall open your stock with a wedge of Iron, or hard wood, faire and softlie: then if the sides of your clefts be ragged, ye shall pare them with the point of a sharp knife on both sides, within and above, then set in your graffes close on the outsides, and also above: but let your stock be as little while open as you can, and when your graffs be wel set in, pluck forth your wedge: and if your stock do pinch your graffs much, then ye must put in a wedge of the same wood to help your graffes: Then ye shall lay a thick barke or pill over the cleft, from the one graffe to the osher, to keep out the Clay and Raine, and so Clay them two fingers thick round about the Clifses, and then lay on Mosse, but Wooll is better next to your Clay, or else to temper your Clay with Wool or Haire, for it shall make it bide closer, and also stronger on the stock head: some take Wooll next the Clay, and wrappeth it all over with linen clouts, for the Wool being once moist, will keep the Clay so a long time. And other some take Woollen clouts, that have been laid in the juyce of Worm-wood, or such like bitter thing, to keep creeping wormes from comming under to the graffes. If ye graffe in Winter, put your Clay uppormost, for Summer your Mosse. For in Winter the Mosse is warme, and your Clay will not cleave. In Summer your Clay is cold, and your Mosse keeps him from cleaving or chapping. To bind them, take of Willow pills, of cloven Briers, of Oziers, or such like. To gather your graffes on the East part of the tree is counted best: if ye gather them below on the under boughes, they will grow flaggie, and spreading abroad: If ye take them in the top of the tree, they will grow upright. Yet some do gather their Cions or Graffes on the sides of the trees, and so graffe them againe on the like sides of the stocks, the which is of some men not counted so good for fruit. It is not good to graffe a great stock, for they will be long ere they cover the head thereof.

*Of Wormes in trees or fruit.*

**I**F ye have any trees eaten with Wormes, or do bring Worme fruit, ye shall use to wash all his body and great branches, with two parts of Cow pisse, and one part of Vinegar, or else if



ye can get no Vinegar, with Cow pisse alone, tempered with common Ashes: then wash your trees therewith before the Spring, and in the Spring, or in Summer, Aniseseeds sowen about the tree roots, drive away wormes, and the fruit shall be the sweeter.

*The setting of stones, and ordering thereof.*

**A**S for Almond trees, Peach trees, Chery trees, Plum trees, or others, ye shall thus plant or set them. Lay first the stones in water, three daies and four nights, until they sink therein: then take them betwixt your finger and your thumb, with the finall end upward, and so set them two fingers deep in good earth. And when ye have so done, ye shall rake them all over, and so cover them: and when they begin to grow or spring, keep them from weeds, and they shall prosper the better, especially in the first year. And within two or three years after, ye may set or remove them where ye list, then if ye do remove them again after that, ye must prune off all his twigs, as ye shall see cause, nigh the stock: thus ye may do of all kind of trees, but especially those which have the great sap, as the Mulbery, or Fig trees, or such like.

*To gather Gumme of any tree.*

**I**f ye list to have the Gumme of an Almond tree, ye shall stick a great nail into the tree, a good way, and so let him rest, and the Gumme of the tree shall issue thereat: thus do men gather Gum of all sorts of trees: yea, the common Gum that men do use and occupie.

*To set a whole Apple.*

**A**lso some say, that if ye set a whole Apple four fingers in the earth, all the Pepins or Curnels in the same Apple will grow up together in one whole stock or Clon, and all those Apples shall be much fairer and greater then others, but ye must take heed, how ye do set those Apples, which do come in leap year, for in a leap year (as some do say) the Curnels or Pepins are turned contrary, for if ye should so set, as commonly a man doth, ye shall set them contrary.

*Of setting the Almond.*

**A**lmonds do come forth and grow commonly wel, if they be set without the shell or huske, in good earth, or in rotten hogs dung: If ye lay Almonds one day in Vinegar, then shall they (as some say) be very good to plant: or lay them in Milke and water, until they do sink, they shall be the better to set, or any other Nut.

## Planting and Graffing.

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### *Of Pepins watered.*

**T**He Pepins and Curnels of those Trees, which have a thicke or rough barke, if ye lay them three daies in water, or else untill they sinke therein, they shall be the better; then set them, or sow them, as is afore mentioned, and then remove them, when they be well rooted, of three or four years growth, and they shall have a thin barke.

### *To Plant or set Vines.*

**I**f ye Plant or set Vines, in the first or second yeare, they will bring no fruit, but in the third yeare they will beare; if they be well kept: ye shall cut them in *January*, and set them soone after they be cut from the Vine, and ye shall set two together, the one with the old wood, and the other without, and so let them grow, in plucking away all weeds from about them, and when ye shal remove them in the second and third yeare, being well rooted, ye shal set them wel a foot deepe in good fat earth, with good dung as of one foot deep, or thereabouts, and keepe them cleane from weeds, for then they will prosper the better, & in summer when the grape is knit, then ye shal break off his top or branch at one or two joynts after the grape, and so the grape shall be the greater, and in the winter when ye cut them, ye shal not leave past two or three leaders on each branch, on some branch but one leader, which must be cut betwixt two joynts, and ye shal leave the young Vine to be the leader. Also ye shal leave thereof three or foure joynts at all times, if a young Cion do come forth of the old branch, or side thereof, if ye do cut him, ye shal cut him hard by the old branch, and if ye will have him to bring the grape next yeare, ye shal leave two or three joynts thereof, for the young Cions alwaies bringeth the grape: ye may at all times, so that the grape be once taken and knit, ever as the superfluous Cions do grow, ye may breake them off at a joynt, or hard by the old branch, and the grapes will be the greater: thus ye may order your Vine all the summer long without any hurt.

### *To set or plant the Chery.*

**C**hery trees, and all the trees of stone fruit, would be planted or set of Cions, in cold grounds and places of good earth, and likewise in high or hilly places, drie and we'l in the shade: if ye do remove, ye ought to remove them in *November* and *January*, if ye shal see your Chery tree wax rotten, then shal yee make a hole in the midst of the body two foot above the ground, with a bigge Pear-

cer, that the humour may passe forth thereby, then afore the spring shut him up again with a pinne of the same Tree : thus ye may do unto all other sorts of trees when they begin to rot, and is also good for them which beare scant of fruit or none.

*To keep Cherries good a yeare.*

**Y**E shal cut off the stalks, and then lay them in a well leaded pot, and fill the said pot therewith, then put unto them of good thin hony, and fill the said pot therewith, then stop it with Clay that no aire enter in, then set them in some faire Seller, and put on sand under and all about it, and cover the pot wel withal, so let it stand or remaine : thus ye may keep them a yeare, as fresh as though they came from the tree, and after this sort ye may keep Pears or other fruit.

*Against Pismirs.*

**I**F ye have Cherry trees laded or troubled with Pismirs or Ants, ye shal rub the body of the tree, and all about the root with the juyce of Purslaine, mingled halfe with Vineger. Some doe use to annoint the Tree beneath, and all about the body, with Tarre and Birdlime, with Wool, & oyle boyled together, and annoint the tree beneath therewith, and lay Chalke stones all about the tree root, some say it is good therefore.

*The setting of Chestnuts.*

**T**HE Chestnut-tree, men do use to plant like unto the Fig-tree. They may be both planted and graffed well, they wax wel in fresh and fat earth, for in sand they like not. If ye will set the curiels, ye shal lay them in water until they doe sinke, and those that doe sinke to the bottome of the water be best to set, which ye shal set in the Month of November and December, foure fingers deep, a foot one from another, for when they be in these two Moneths set or planted, they shall endure long, and beare also good fruit ; yet some there be that plant or set them first in dung like beanes, which will be sweeter then the other sort, but those which be set in the two months afore said, shall first beare their fruit, men may prove which is best, experience doth teach. This is another way to prove & know, which Chestnuts be best to plant or set; that is, ye shal take a quantity of nuts, then lay them in sand the space of thirty dayes, then take and wash them in water faire and clean, and throw them into water again, and those which do sinke to the bottom, are good to plant or set, and the other that swim are naught :

naught : thus may ye doe with all other Curnels or Nuts.

*To haue all stone fruit tast as ye shall thinke good.*

**I**F yee will haue all stone fruit tast as ye shall fancy or thinke good, yee shall first lay your stones to soke in much liquor or moisture, as ye will haue the fruit tast of, and then set them, as for the Date tree (as some say) he bringeth no fruit except he be a hundred year old, and the Date stone must soke one month in the water, before he be set, then shall ye set him with the smal end upward in good fateful earth, in hot Sandie ground four fingers deep, and when the boughs do begin to spring, then shall ye every night sprinkle them with raine water, (or other if ye haue none) so long till they be come forth and grown.

*Of graffing the Medlar and Mistle tree.*

**F**OR to graffe the Medlar or Mistle : men do use to graffe them on the white Hathorne tree, they will prove well, but yet smal and sower fruit ; to graffe one Medlar upon another is the better. Some men do graffe first the Wilding Cion upon the Medlar stock, and so when he was wel taken and grown, then they graffe thereon the Medlar againe, the which doth make them more sweet, very great and faire.

*Of the Fig-tree.*

**T**HE Fig-tree in some Countreies, beareth his fruit four times a year, the black Figs are the best, being dried in the Sun, and then laid in a vessel in beds one by another, and then sprinkled or strowed all over, every lay with fine Meale, then stop it up, and so it is sent out of the Land, If the Fig tree will not beare, ye shall dig him all about, and under the roots in February, and take out then all his earth, and put unto him the dung of a priue, for that he liketh best : ye may mingle with it of other fat earth, as Pigeons dung mingled with oyle and pepper stampd, which shall forward him much to annoint his roots therewith : ye shall not plant the Fig tree, in cold times, he loveth hot, stonie, or gravelly ground, and to be planted in Autumne is best.

*Of the Mulbery tree.*

**I**F ye will plant the Mulbery tree, the Fig tree or others which bring no seed, ye shall cut a twig or banch (from the tree root) of a years growth, with the old wood or barke, about a cubit long, which ye shall plant or set all in the earth, save a shaftet long to

it, and so let it grow, in watering it as ye shall see need. This must be done before the leaves begin to spring, but take heed that ye cut not the end or top above, for then it shall wither and drie.

*Of trees that beare bitter fruit.*

**O**F all such trees as beare bitter fruit, to make them bring sweeter, ye shall uncover all the roots in *January*, and take out all that earth, then put unto them of Hogges dung great plenty, and then after put unto them of other good earth, and so cover them therewithal wel again, and their fruit shall have a sweeter tast. Thus men may do with other trees which bring bitter fruit.

*To helpe barren trees.*

**H**ERE is another way to helpe barren trees, that they may bring fruit: if ye see your tree not bear in three or four years good plenty, ye shall bore a hole with an Auger or Pearcer, in the greatest place of the body (within a yard of the ground) but not through, but unto or past the heart, ye shall bore him aslope: then take hony and water mingled together a night before, then put the said hony and water into the hole, and fill it therewith, then stop it close with a short pin made of the same tree, not stricken in too far for piercing the liquor.

*Another way.*

**I**N the beginning of Winter, ye shall dig those trees round about the roots, and let them so rest a day and a night, and then put unto them of good earth, mingled well with good store of water Oates, or with water Barly or Wheat, laid next unto the roots, then fill it with other good earth, and he shall beare fruit, even as the boring of a hole in the matter root, and strike in a pin, and so fill him again, shal help him to bear, as afore declared.

*To keep your fruit.*

**A**Ll fruit may be the better kept, if ye lay them in dry places, in drie Straw or Hay; but Hay ripeth too soon, or in a Barly mow, not touching one the other, or in Chaffe, or in vessels of *Juniper*, or *Cipres* wood, ye may so keep them wel in dry Salt or Hony and upon boards, whereas the fire is nigh all the winter, also hanging nigh fire in the winter, in Nets of yarn.

*The Mulberie tree.*

**T**HE Mulberie tree, is planted or set by the Fig tree, his fruit is first sower, and then sweet, he liketh neither dew nor raine, for they hurt him, he is wel pleased with foule earth and dung: His branches



branches will wax dry within every six years, then must ye cut them off, as for other trees they ought to be pruned every year, as ye shall see cause, and they will be the better, and to plant them from mid February, to mid March is best.

*Of Mosse of trees.*

**Y**e must not let your trees be too long uncleanfed, ye must rub off the mosse with a grate of wood, or a rough hair, or such like, when they be moist or wet, for then it will off the sooner, for Mosse doth take away the strength and substance of the fruit, and makes the trees barren at length: when you see your trees begin to wax Mosse, ye must in the Winter uncover their roots, and put under them good earth, this shall help them, and keep them long without Mosse: for the earth not stirred about the root, is one cause of Mosse, and also the barrenesse of the ground whereon he standeth, and your Mosse doth succour in Winter, Flies and other vermin, and so doth therein lide them in Summer, which is occasion of eating the blossomes, and tender Cions thereof.

*To keep Nuts.*

**F**or to keep Nuts long, ye shall drie them, and cover them in drie sand, and put them in a drie Bladder, or in a Fat made of Walnut tree, and put of drie Ivie berries therein, and they shall be much sweeter. To keep Nuts green a year, and also fresh, ye shall put them into a pot with Honie, and they shall continue fresh a year, and the said Honie will be gentle and good for many Medicines. To keep Walnuts fresh an green, in the time of straining or Vergiuyce, ye shall take of that Pommis, and put thereof in the bottome of a barrel, then lay your Walnuts all over, then Pommis over them, and so Walnuts again, and then of the Pommis, as you shall see cause to fill your vessel: Then stop him close as ye do a barrel, and set him in your Seller, or other place, and it shall keep your Nuts fresh and green a year. Some use to fill an earthen pot with small Nuts, and then put to them drie sand, and cover them with a lid of earth, or stone, and then they clay it, setting the mouth of the pot downward, two foot within the earth, in their garden, or other place, and so they will keep very moist and sweet untill new come.

*To cut the Peach tree.*

**T**He Peach tree is of this nature, if he be cut (as some say) green, it will wither and drie. Therefore if ye cut any small branch, cut

cut it hard by the body: the withered twigs even as they wither, must be cut off hard by the great branch, or body thereof, for then they do prosper the better. If a Peach tree do not like, ye shall put to his roots, the lees of Wine mingled with water, and also wash his roots therewith, and likewise the branches, then cover him again with good earth mingled with his own leaves, for those he liketh best. Ye may graffe Peach upon Peach, upon Hasil, or Ash, or upon Cherie tree, or ye may graffe the Almond upon the Peach tree. And to have great Peaches, ye must take Cowes milke, and put good earth thereto, then all to strike the bodie of the tree therewith, both upward and downward, or else open the root all bare, three daies and three night, then take Goats milke, and wash all the roots therewith, and then cover them againe: this must be done when they begin to blossome, and so shall he bring great Peaches.

*To colour Peach stones.*

**T**O colour Peach stones that all the fruit thereof shall have the like colour hereafter, that is, ye shall lay or set Peach stones in the earth seven daies or more, untill ye shall see the stones begin to open, then take the stones and the curnels softly forth thereof, and what colour ye will, colour the curnel therewith, and put them into the shell againe, then bind it fast together, and set it in the earth, with the smal end upward, and so let him grow, and all the Peaches which shall come of the same fruit, (grafted or ungrafted) will be of the same colour. The Peach tree ought to be planted in Autumne, before the cold do come, for he cannot abide the cold.

*If Peach trees be troubled with wormes.*

**I**F any Peach trees be troubled with womes, ye shall take two parts of Cow piss, with one part of Vinegar, then shall ye sprinkle the tree all over therewith, and wash his roots and branches also, and it will kill the wormes: This may ye doe to all other trees, which be troubled with wormes.

*To have the Peach without stones.*

**Y**E shall take a Peach tree newly planted, then set a Willow hard by, which ye shall bore a hole through, then put the Peach tree through the said hole, and so close him on both sides thereof, Sap to Sap, and let him so grow one yeare, then the next yeare ye shall cut off the Peach stock, and let the Willow feed him, and

and cut off the upper part of the willow also three fingers high, and the next winter saw him off nigh the peach, so that the Willow shall feed but the Peach onely: and this way ye may have peaches without stones.

*Another way for the same.*

**Y**ee shall take the graffes of Peaches, and graffe them upon the Willow stocke, and so shall your Peaches be likewise without stones.

*If Trees do not prosper.*

**I**F that ye see that your trees doe not wax nor prosper, take and open the roots in the beginning of January, or afore, and in the biggest root thereof, make a hole with an Auger to the pith or more, then strike therein a pin, of Oake, and so stop it again close, and let it be well waxt all about the pinne, then cover him againe with good earth, and he shall doe well: some doe use to cleave the root.

*How to Graffe Apples, to last on the tree till Alballowside.*

**H**ow ye may have many sorts of Apples upon your trees untill Alballowside, that is, ye shall graffe your Apples upon the Malberic tree, and upon the Cherie tree.

*To make Cherries and Peaches smell, and taste like spices.*

**H**ow to make Cherries and Peaches, shall be pleasant, and shall smell and taste like spice, and that ye may keep them well, till the new doe come againe, ye shall graffe them on the Mulberry tree, as is aforesaid. But first yee shall soke them in Honey and Water, wherein ye shall put of the powder of Cloves, Ginger, and Cinamon.

*To graffe an Apple which shall be halfe sweet, and halfe sower.*

**T**O graffe that your Apples shall be the one halfe sweet, and the other halfe sower: ye shall take two Cions, the one sweeter and the other sower, some doe put the one Cion through the other, and so graffes them betweene the barke and the tree: and some againe doe pare both the Cions finely, and so sets them joyning into the stock, inclosing sap to sap, on both the outsidies of the graffes, unto the outsidies of the stocke, and so sets them into the head as the other, and they shall bring fruit, the one halfe sweet, and the other halfe sower.

*To graffe a Rose on the Holly.*

**F**or to graffe the Holly, that his leaves shall keepe all the yeare green: Some do take and leave the Holly, and so graffes in a

white or red Rose bud, and then put Clay and Mosse to him, and let him grow, and some doe put the Rose bud into a slit of the bark, and so putteth Clay and Mosse, and binds him featly therein, and lets him grow, and he shall carry his lease all the yeare.

*Of keeping of Plums.*

**O**F Plummies there be many sorts, as Damsons, which be all blacke, and counted the best: All manner of other Platts a man may keepe well a yeare, if they be gathered ripe, and then dried, and put into vessels of Glass: If ye cannot dry them well in the Sun, ye shall dry them on hurdels of Ozlars made like Lattice windows, in a hot oven after Bread is drawne forth, and so reserve them. If a Plum-tree like not, open his root, and powre in all about the dregs of Wine mixt with water, and so cover him well againe, or powre on them stale Urine, or old piss of old men, mixt with two parts of Water; and so cover him as before.

*Of altering of Pears, or stony fruit.*

**I**F a Peare do talk hard or gravelly about the core, like small stones, ye shall uncover his roots (in the Winter, or afore the spring) and take out all the earth thereof, and picke out all the stones as clean from the earth, as ye can about his root, then lift that earth, or else take of other good fat earth without stones, and fill all his roots again therewith, & he shall bring a soft and gentle Peare to eat, but ye must see well to the watering of him often.

*Of the making of Cider and Perry.*

**O**F Apples and Peares, men do make Cider and Perry, and because the use thereof in most places is known, I will here set passe to speake any further thereof; but this (in the pressing your Cider,) I will counsell you to keepe cleane your vessels, and the places whereas your fruit doth lye, and specially after it is bruised or broken, for then they draw filthy aile unto them, and if it be aile, the Cider shall be infected therewith, and also bare the taste after the infection thereof: therefore as soone as you can, turn it into cleane and sweet vessels, as into vessels of white Wine, or of Sacke or Claret, and such like, for these shall keepe your Cider the better and the stronger a long time after: Ye may hang a small bagge of linnen by a thred, downe into the lower part of your Vessell, with powder of Cloves, Mace, Cinamon, and Ginger, and such like, which will make your Cider to have a pleasant taste.

*To helpe frozen Apples.*

**O**F Apples that be frozen in the cold and extreame Winter. The remedie to have the Ice out of them, is this : Ye shall lay them first in cold water a while, and then lay them before the fire, or other heat, and they shall come to themselves againe.

*To make Apples fall from the tree.*

**I**F ye put of fiery coles under an Apple tree, and then cast of the powder of Brimstone therein, and the fume thereof ascend up, and touch an Apple that is wet, that Apple shall fall incontinent.

*To water trees in Sommer, if they want moisture about the root.*

**W**Hereas A pple trees be set in dry ground, and not deep in the ground, in Sommer if they want moisture, ye shall take of Wheat straw, or other, and every evening (or as ye shall see cause) cast thereon water all about, and it will keep the trees moist from time to time.

*To abateish Apple trees.*

**I**F ye use to throw (in winter) all about your Apple trees on the roots thereof, the Urine of old men, or stale piss long kept, they shall bring fruit much better, which is good for the Vine also, or if ye do sprinkle or anoint your Apple tree roots with the gall of a Bull, they shall bear the better.

*To make an Apple grow in a glasse*

**T**Ake a glasse, what fashion ye list, and put your Apple therein when he is but small, and bind him fast to the glasse, and the glasse also to the tree, and let him grow, thus ye may have Apples of divers proportions, according to the fashion of your glasse. Thus may ye make of Cucumbers, Gourdes, or Pomecitrons, the like fashion.





**T**Hese three branches and figure of grafting in the shield in Somerset, is, the first branch sheweth how the barke is taken off, the middle place sheweth, how it is set too, and the last branch sheweth how to bind him on; in saving the oylet or eye from bruising.

*To graffe many sorts of Apples on one tree.*

**Y**OU may graffe on one Apple tree at once, many kind of Apples, as on every branch a contrary fruit, as is afore declared, and of Pears the like: but see as nigh as you can, that all your Citons be of like springing, for else the one will not grow and shadow the other.

*To colour Apples.*

**T**O have coloured Apples, with what colour ye shall think good, ye shall bore slope a hole with an Auger, in the biggest part of the body of the tree, unto the midst thereof, or thereabouts, and then look what colour ye will have them of. First ye shall take water, and mingle your colour therewith, then stop it up againe with

with a short pin made of the same wood or trees, then wax it round about : ye may mingle with the said colour what spice ye list, to make them tast thereafter : thus may ye change the colour and taste of any Apple : your colours may be of Saffron, Tournesole, Brasell Sanders, or others what ye shall see good. This must be done before the Spring do come : some do say, if ye graffe on the Olive stock, or on the Alder stock, they will bring red Apples. Also they say, to graffe to have fruit without core, ye shall graffe in both the ends of your Cion into the stock, and when they be fast growne to the stock, ye shall cut it in the midst, and let the smaller end grow upward, or else take a Cion and graffe the small end of the stock downward, and so shall ye have your Apple tree on S. Lamberts day, (which is the 17. of September) they shall never waste, consume, nor wax dry, which I doubt.

*The setting of Vine Plants.*



**T**He figures do shew how ye ought to plant and set your Vines in two and two together, the one to have a part of the old tree, and the other may be all of the last Cion : but when ye plant him with a part of the old tree, he shall commonly take root sooner then the new Cion, ye must weed them every mo. h, and let not the earth be too close above their roots at the first, but now and then loose it with a spade as ye shall see a raine past, for then they shall enlarge, and put forth better. Further herein ye shall understand after.

*How to prune or cut a Vine in Winter.*



**T**His figure sheweth, how all Vines should be pruned and cut, in a convenient time after Christmas, that when ye cut them ye shall leave his branches very thin, as ye see by this figure: ye shall never leave above two or three leaders at the head of any principal branch, ye must also cut them off in the midst between the knots of the young Cions, for those be the leaders which will bring the Grape, the rest in order ye shall understand as followeth.

*Of the Vine and Grape.*

**S**omewhat I intend to speak of the ordering of the Vine and Grape, to plant or set the Vine: the plants or sets which be gathered from the Vine (and so planted) are best, they must not be old gathered, nor lie long unplanted after they be cut, for then they will soon gather corruption, and when ye do gather your plants, ye must take heed to cut and choose them, where ye may with the young Cion, take a joynt of the old wood with the new, for the old wood will sooner take root then the new, & better to grow then if it were all young Cion, ye shal leave the old wood to the young Cion, a foot, or half a foot, or a shaftnet long, the young Cion ye shal cut the length of three quarters of a yard or thereabouts, and ye shal choose of those young Cions that be thickest joynted or nigh joynts together, and when ye shal plant or set them, looke that your ground be wel digged in the winter before, then  
in

in *January* ye may both cut and Plant, but cut not in the frost for that is danger of all kinde of trees, or ye may plant in the beginning of *February*, and when ye doe plant, ye shall take two of those plants, and set or lay them together, a foot deepe in the earth, for two plants set together will not so soon faile, as one alone, and lay them a foot long wayes in the earth, so that there may be above the earth three or foure joynts: ye may plant a young Cion with the old, so that he be thick or nigh joynted, for then he is the better to root, and also to bring fruit: then when ye have set or laid them in the earth, then cover them well therewith, in treading it fast downe unto the plants, but let the ends of your Cions or Plants be turned upright, above the earth three or foure joynts, if there shall be more when they be set, ye shall cut them off, and ye shall cut them alwaies in the midst betweene the two joynts, and then let them so grow, and see that ye weede them alwaies cleane, and once a month loose the earth round about them, and they shall prove the better. If it be very dry and hot in the Summer after, ye may water them, in making a hole with a Crow of Iron to the root, and there ye shall poure in water in the evening. As for the pruning of them, when the Grape is taken and clustered, then ye may breake the next joynt or two after the Grape, of all such superfluous Cions as yee shall see cause, which will cause the Grape to wax bigger: Yee may also breake away all superfluous buddes, or slender branches, which commeth about the root, or on the under branches which ye thinke will have no Grape, and when ye prune or cut them in winter following, ye shall not cut the young Cion nigh the old, by three or foure joynts, ye shall not cut them like Oziers, to leave a sort of heads together on the branch, which doth kill your Vine, ye shall leave but one head, or two at the most, of the young Cions upon the old branch, and to cut those young Cions three or foure knots or joynts off, for the young Cions doe carry the Grape alwaies, and when ye leave upon a great branch many Cions, they cannot be well nourished, and after ye have so cut them in winter, ye shall bind them with Oziers, in placing those young branches as ye shall see cause, and in the spring time, when the branches are tender, yee shall binde them so, that the stormie tempest or winde doe not hurt them, and to binde them withall, the best is, great soft Rushes, and when the Grape is clustered, then

then ye may breake off all such branches as is afore declared, upon one old branch, three or foure heads be enough, for the more heads your branch hath, the worse your Grape shall be nourished, and when ye cut off any branch, cut him off hard by or nigh the old branch: If your Vine wax old, the best remedy is, if there grow any young Cion about the root, yee shall in the winter cut off the old Vine hard by the ground, or as nigh as you can, and let the young Vine lead, and he will continue a long time, if ye cover and fill the place about the root with good earth againe. There is also upon, or by every cluster of grapes, a small Cion like a Pigs taile, turning about, which doth take away the sap from the Grape, if ye pinch it off hard by the stalke of your grape, your fruit shall be the greater. If your Vine wax too rank and thick of branches, ye shall dig the root in winter, and open the earth, and fill it up againe with sand and ashes blend together, and whereas a Vine is unfruitfull and doth not beare, ye shall bore a hole (with an Auger) unto the heart or pith, in the body or thickest part thereof, then put in the said hole a small stone, but fill not the hole close therewith, but so that the sicknesse of the Vine may passe thereby. Then lay all about the root of good earth mingled with good dung, and so shall he not be unfruitfull, but beare well ever after: or also, to cast on old mens Urine or pisse, all about the root of the barren Vine, and if he were halfe lost or mard, he should grow againe, and wax fruitfull, as before: This is to be done in winter.

*To have Grapes without stones, even liwedd in*

**Y**ee shall take young plants or branches, and shall set or plant the top or small end downward in the earth, and so ye may set two of them together for falling, as I have afore declared of the others, and those branches shall bring Grapes without stones.

*To make your Vine to bring a Grape to tast like Claret.*

**T**O make your Vine to have a Grapes, to taste like Claret Wine, and pleasant withall, ye shall bore a hole in the stock unto the heart, or pith thereof, then shall ye make a lectuary with the powder of cloves, of cinnamon mingled with a little fountaine or running water, and fill the said hole therewith, and stop it fast and close with wax, and so binde it fast thereon, with a linnen cloth, and those Grapes shall tast like Claret wine.



*Of gathering your Grapes.*

**A**ll Grapes that men doe cut, before they are thorow ripe, the wine shall not be naturall, nor yet shall long endure good: But if ye will cut or gather grapes to have them good, and to have good Wine thereof; ye shall cut them in the full, or soon after the full of the Moon, when she is in *Cancer*, in *Leo*, in *Scorpio*, and in *Aquarius*, the Moon being in the waine, and under the earth.

*To know if your Grape be ripe enough.*

**F**or to know if your grape be ripe enough, or not, which yee shall not onely know in the taste, but in sight and taste together, as in tast if they be sweet, and full in eating, and in sight, if the stone will soone fall out, being chafed or bruised, which is the best knowledge, and also whether they be white or blew, it is all one matter: The good Grape is he, which commeth out all watry, or those which be clammy as birdlime: By these signes shall ye know when to cut, being thorow ripe or not, and where-as you doe presse your Wine, ye must make your place sweet and cleane, and your vessels within to be cleane also, and see that they have strong heads, and those persons which doe presse the Grape, must looke their hands, feet, and body be cleane washed, when as they goe to presse the Grape, and that no woman be there having her termes: And also ye shall eat of no Cheboles, Scallions, Onions, or Garlike, Anniseeds, or such like: For all strong favours your Wine will draw the infection thereof, and as soone as your Grapes be cut and gathered, you shall presse your Wine after as soone as ye may, which will make your Wine to be more pleasant and stronger, for the Grapes which carry long unpress, maketh the Wine to be small and ill: ye must see that your Vessells be new and sweet within, and to be washed with sweet water, and then well dried againe, and to perfume them with mastick, and such sweet vapour, and if your vessel chance not to be sweet, then shall ye pitch him on the sides, which pitch will take away all evill, and such stincking savour therein.

*To prove or taste Wine.*

**A**nd whensoever ye will prove or tast any Wine, the best time is, early in the morning, and take with you three or foure sops of bread, then dip one after another into the wine, for therein ye shall find (if there be any sharp tast of the wine. Thus I leave (at this present) to speak any further here of the Vine and Grape.

If this my simple labour be taken in good part (gentle Reader) it shall the more hereafter encourage me, to set forth another book more at large, touching the Art of Planting and Graffing, with other things necessary to be knowne.

*Here followeth the best times how to order or choose, and to set or plant Hopper.*



**I**N this figure ye shall understand, the placing and making of the Hoppe hills, by every Cipher over his head: The first place is shewed, but one Pole set in the midst, and the Hoppe beneath: The second sheweth, how some doth chop downe a Spade in the midst of the Hill, and therein layes his Hoproots. The third place is shewed, how other some doe set out one Pole in the midst, and the Hop roots at holes put in round about. The fourth place sheweth, how some chop in a Spade crosse in the top, and there layes in his roots. The fifth place sheweth, how some doe set foure Poles therein, and put the Hop round about the Hill: The sixth place sheweth, that some use to make crosse holes in the sides, and there laye the Hop roots. Thus many practises have been proved good: Provided alwaies that your Hills be of good fat earth, specially in the midst downe unto the bottome. This I thought sufficient to shew by this figure, the diversity in setting, whereof the laying of the Hop is counted the surest way.

**T**He best, and common setting time of Hopper, is from mid November, to mid February, then must ye digge and cleanse the ground of weeds, and mixe it well with good mould and fat earth: Then divide your hills a yard one from another orderly, in making them a yard a sunder, and two foot and a halfe broad in the bottome, and when that ye plant them, ye shall lay in every hill

hill three or foure roots : Some doe in setting of them lay them cross-wise in the middt of the hill, and so cover them againe : Some set the roots in foure parts of the hill, other some doe make holes round about the hills, and put the roots therein, and so cover them againe light with earth : Of one short root in a yeare ye may have many plants, so set and lay as ye shall see it good, and it shall be sufficient for every plant, to have two knots within the ground, and one without : some do chop a Spade cross in the hill, and lay in crosse the Hop, and so cover it.

*To choose your Hop.*

**Y**ee shall choose your roots best for your Hop, in the Summer before ye shall plant them, for then ye shall see which beares the Hop, for some there is that brings none; but that which beares, choose for your plants, and set of those in your hills, for so shall ye not be deceived, and they shall prosper well.

*To sow the seeds.*

**S**ome doe hold, that ye may sow among other seeds, the seeds of Hops, and so will increase and be good to set, or else to make beds, and sow them alone, whereby they may increase to be set, and when they be strong, ye may remove and set them in your hills, and plant them as the other before mentioned.

*The setting your Poles.*

**T**he best time is in *April*, or when your roots be sprung halfe a yard long or more, then by every plant or Hop, in your hills, yee shall set up a pole of 13. or 14. foot long, or thereabouts, as cause shall require. Some doe use to set but foure poles in every hill, which is thought sufficient; and when ye shall set them, see that ye set them so fast, that great windes doe not cast them down.

*How to prune the Hop-tree.*

**Y**ee shall marke when the Hop doth blossome, and knit in the top, which shall be perceived to be the Hop, then take and cut up all the rest growing thereabouts (not having Hop thereon) hard by the earth, that all those which carry the Hop, might be the better nourished : thus shall ye doe in Summer, as ye shall see them increase and grow, until the time of gathering.

To gather the Hoppe.

**A**Tsuch time afore *Michaelmas*, as ye shall see your Hop wax browne, or somewhat yellow, then he is best to be gathered in a dry day, in cutting your Hop by the ground, then pluck up your pole therewith for shaking off your Hop, so carry them into some dry house, and when ye have so plucked them, ye shall lay them on boarded lofts, or on hurdels of cloths, that the wine may dry them, and the aire, but not in the Sun, for the same will take away the strength thereof, nor with fire, for that will doe likewise; and ye shall tolle and turne them daily till they be dry: to try them when they are dry, hold them in your hand a space, and if they cleave together when ye open your hand, they are not then drie: but if they shatter asunder in opening your hand, then ye may be sure they are drie enough. If not, let them remaine, and use ye them as is before said. Ye shall understand the driness of them is to preserve the same long to last, but if need be, ye may occupie them well undried, with less portion to sow.

What Poles are best.

**Y**E shall prepare your Poles of such wood as is light and stiff, and which will not bow with every winde, the best and meetest time to get them is in *Winter*, when the Sappe is gone downe, and as soone as ye have taken of your Hoppe, lay your Poles in sundry places untill the next spring, whereby they may endure the longer.

How to order and dress your Hills.

**A**fter the first yeare is past, your Hop being increased to more plenty of roots in your hils, ye shall after *Michaelmas* every yeare, open your hils, and cast downe the tops unto the roots, uncovering them, and cut away all the superfluous spots, some doth pluck away all the roots that spreads abroad without the hils, then opens the hils and puts of good new earth unto them, and so covers them againe, which shall keepe them from the Frost, and also make the ground fat, so shall ye let them remaine unto the Spring, of the yeare, in *February* or *March*, then againe, if ye shall see any superfluous roots, ye may take them away, and cut them up, and your Hop shall be the better; then againe cast up the earth about your hils, and cleansing them from all weeds and other roots, which will take away their strength, if the hearbs remaine, so let them rest till your Poles may be set therein.

*Of ground for your Hoppe.*

**T**He Hoppe delighteth and loveth a good and reasonable fat ground, not very cold, nor yet too moist, for I have seene, them prove well in *Flanders*, in drie sandie fields, the Hoppe hills being of good fat earth, ye may (as some saie) for great neede make your Hoppe grow and beare on any kinde of rockie ground so that your hills be great and fat earth, but the lower ground commonly proveth the best, so that it stand well and hot in the Sun.

*A note of the rest above-said.*

**Y**ee shall marke and understand, all this order above-said, is to have many Hoppes and good, with a few roots, and plants placed in a small plot of ground. Ye shall understand, the wilde Hoppe that groweth in the hedges, is as good to occupie as the other, to set or plant in any other place; but looke that ye take not the barren Hoppe to plant, some Hoppe will be barren for want of good earth, and lacke of dressing, which ye shall perceive (as I have told you) in the summer before, that when they should beare they will be barren, which is for want of good fat earth, or an unkinde yeare, or lacke of weeding and good ordering. Therefore such as are minded to bestow labour on the ground, may have as good Hoppe growing in this Country, as is in other Countries: but if ye will not goe to the cost, to make Hop-yards, ye may with a light charge have Hops grow in your hedge-rows, to serve as well as the other, and shall be as good for the quantity as the other in all respects: ye may (for lack of ground) plant Hop-roots in hedge-rows, when ye doe quick-set, set up poles by them when time shall require in the spring, and to bestow every winter after the gathering your Hoppe; on every hill head, a shovell full of dung to comfort the earth, for then will they beare the more plentie of Hoppe the next yeare following: to conclude, you that have grounds may well practise in all things afore mentioned, and specially to have Hoppe in this ordering, for your selves, and others: also ye shall give encouragement for others to follow hereafter. I have heard by credible persons, which have knowne a hundred hills, (which is a small plat of ground) to bear three hundred pound of Hoppe, so that the commoditie is much, and the gaines great: and one pound of our Hoppe dried and ordered, will goe as farre as two pound of the best Hoppe that com-



meth from beyond the Seas. Thus much I thought meet and necessary to write, of the ordering and planting of the Hop.

*How to pack your Hops.*

**W**hen your Hops be well tossed and turned on boarded floores, and well dried (as I have afore shewed) ye shall put them into great sackes according to the quantitie of your Hoppes, and let them be trodden downe hard together, which will keepe their strength longer; and so ye may reserve them, and take at your pleasure. Some doe use (which have but small store) to tread them into drie Fats, and so preserve them for their use, which is counted the better way, and the lesse portion doth serve, and will longer keepe their vertue and strength.

*Wishing long life and prosperous health,*

*To all furtherers of this Common-Wealth.*



**FINIS.**

